

# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL  
RAILROAD AND FINANCIAL NEWSPAPER.

## AMERICAN COMPETITION IN THE IRON TRADE.

[London Times.]

The iron trade is full of surprises and changes—more so, perhaps, than any other industry of modern times. Whether in imports or exports, progress or regress, costs or prices, home or foreign markets, new and often unexpected features are continually coming to the front. This is especially true of the position that has lately been acquired by the United States in relation to the iron trade of the world. Less than twenty years ago the United States were importing about a million and a-half tons of iron and steel from the United Kingdom, and the total imports of iron and steel into our own country were only about a seventh part of the volume imported into the United States. Today Great Britain is importing more than twice the volume of iron and steel that is being received into the United States. Less than twenty years ago the United States were not exporting iron and steel at all, under any circumstances, as an ordinary commercial product, whereas today they are exporting these commodities at the rate of close on a million tons a year, in addition to supplying the vast volume of their own requirements. These are great changes, but they do not stand alone. It should be added that twenty years ago the cost of a ton of Lake Superior ore, delivered at furnaces in Pittsburgh, was not less than 25s. to 30s., whereas to day it is not one-half of that amount; that then the cost of Bessemer pig iron at Pittsburgh was more than twice what it has been during late months, and that the price of steel rails at the same great center of production averaged over \$50 per ton, against \$15 to \$17 quoted for export during the greater part of last year. These revolutionary movements have tended to bring about great changes in the export conditions of both Great Britain and the United States and in the influences by which they are controlled and regulated. It amounts, in short, to this: that our prices and exports alike are not entirely fixed by home or Continental competition as they used to be, but by the prevailing tone of the markets and the industrial situation generally in the United States.

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Baltimore, July 7, 1899.





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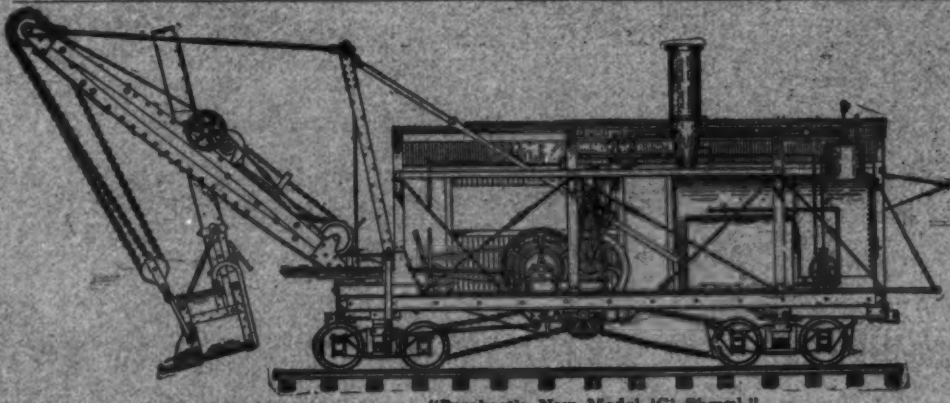
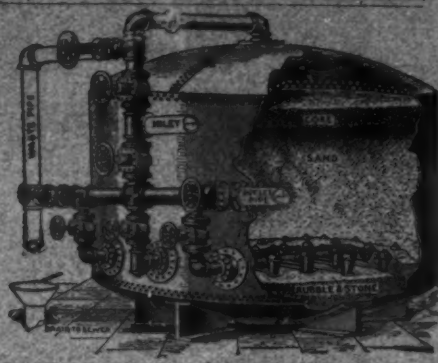
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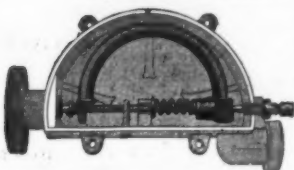


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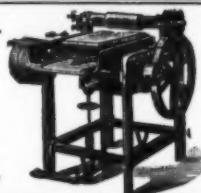
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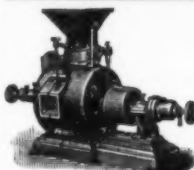
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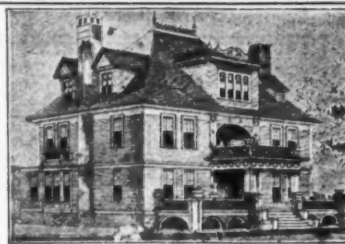
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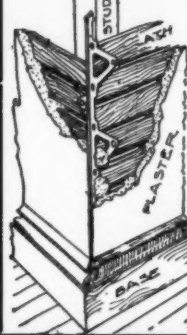
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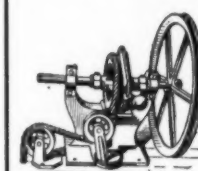


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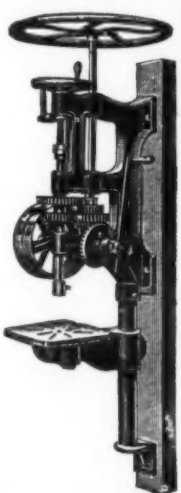
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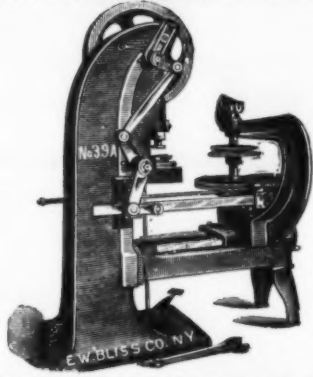
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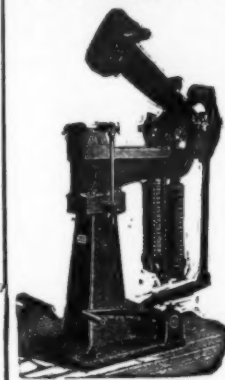
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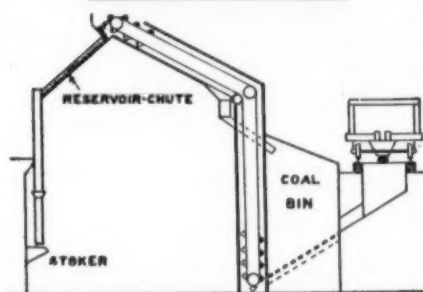
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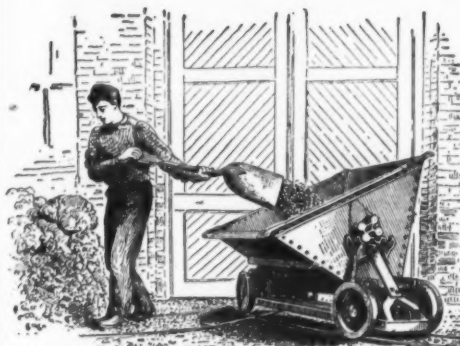
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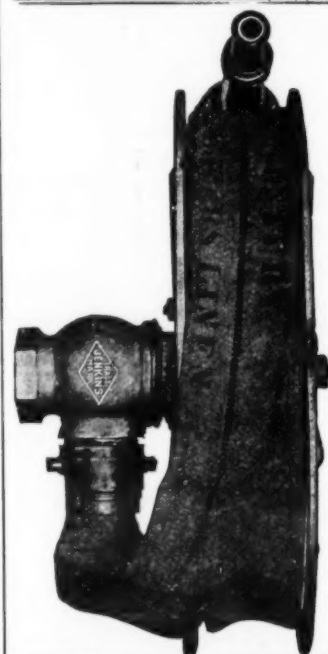


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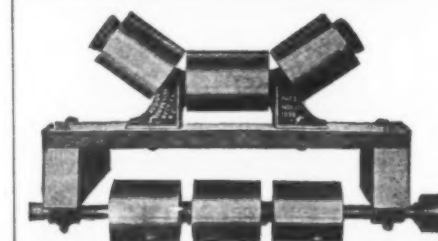
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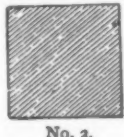


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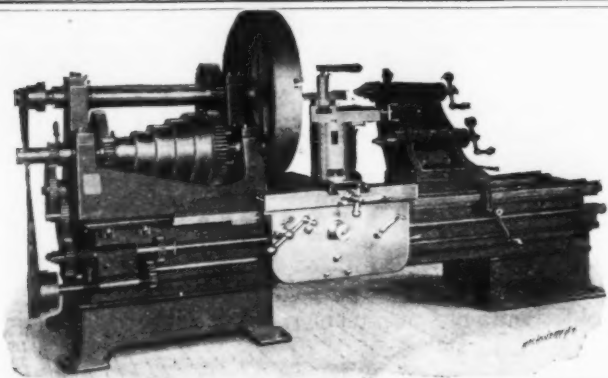
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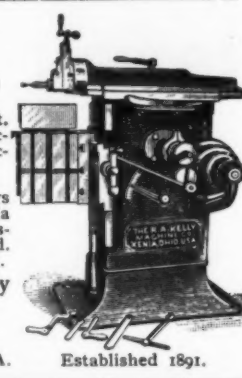
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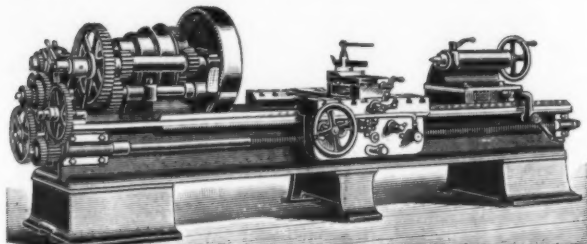
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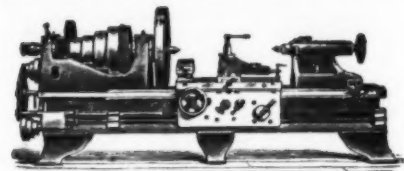
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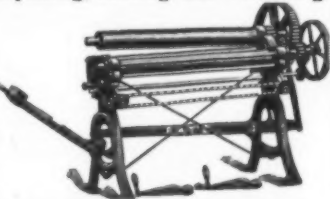
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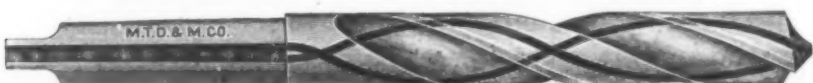
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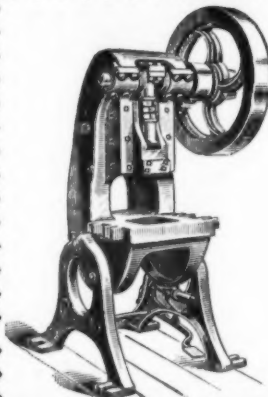


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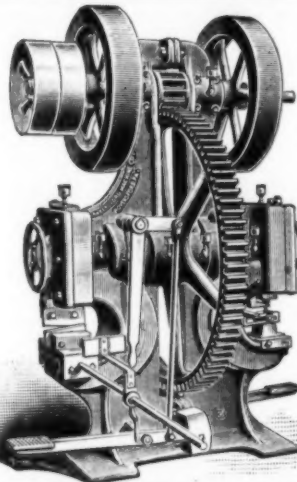
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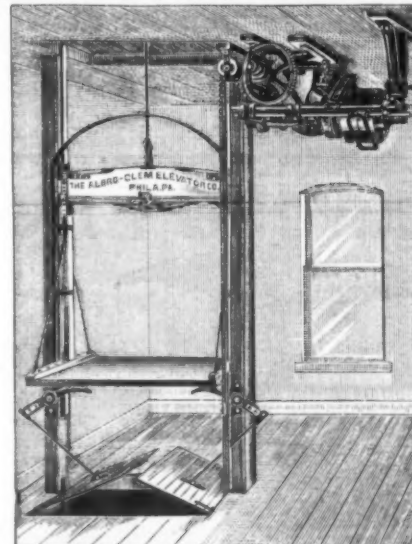
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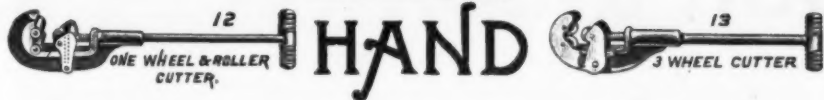
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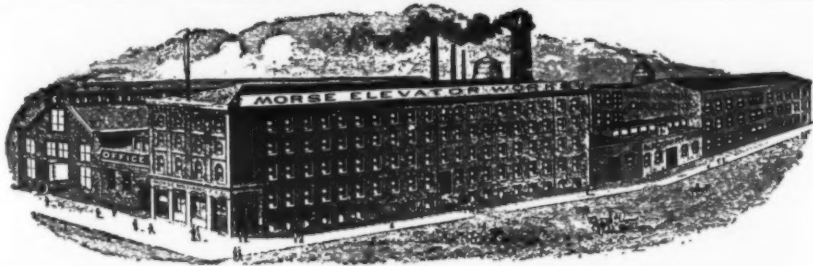
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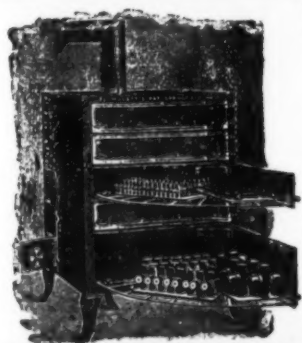
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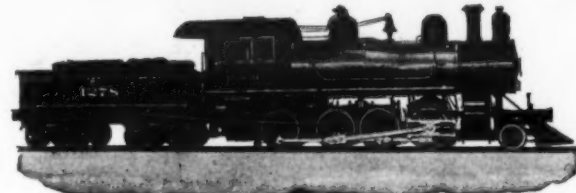
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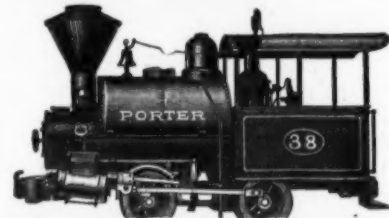
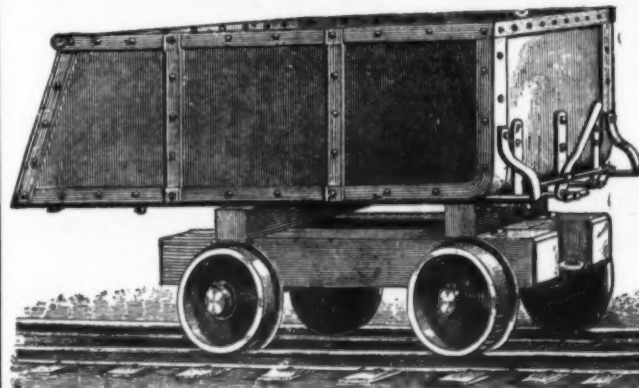
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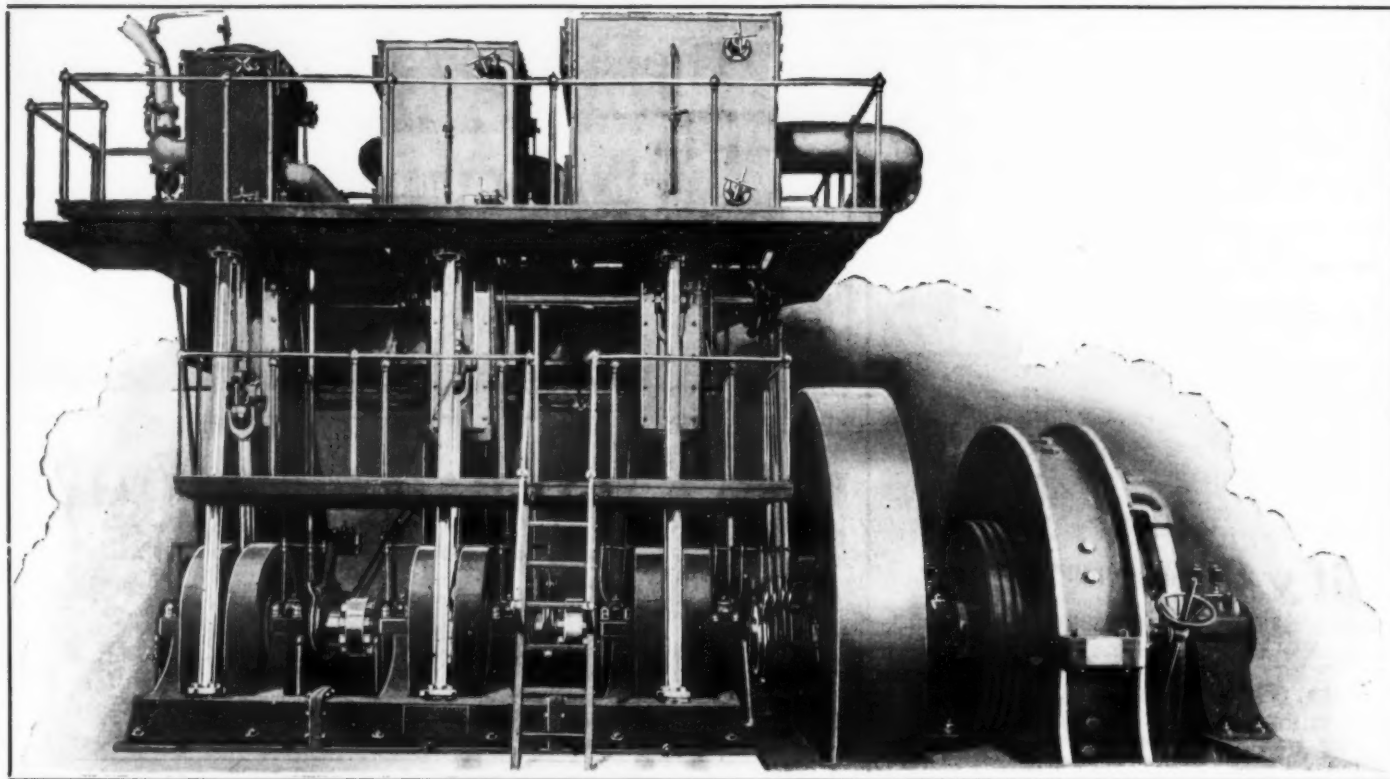
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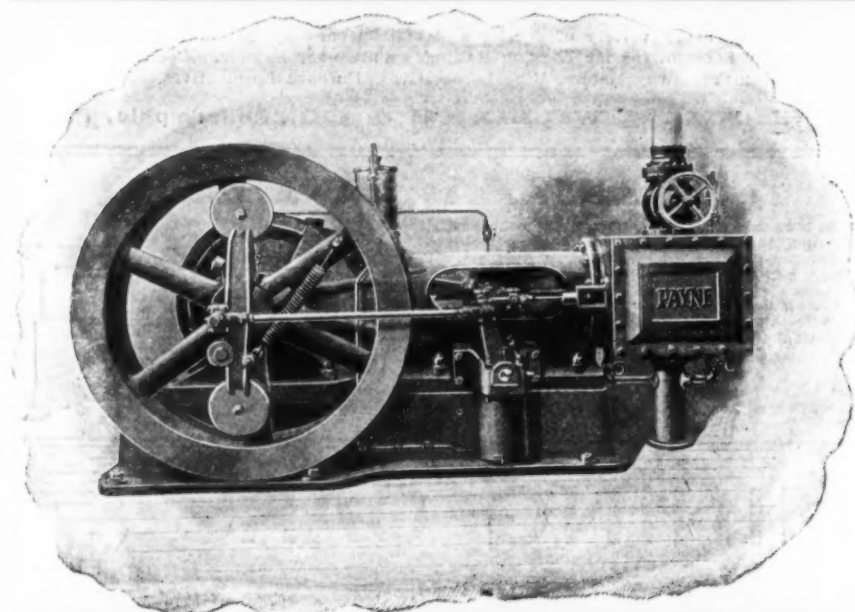
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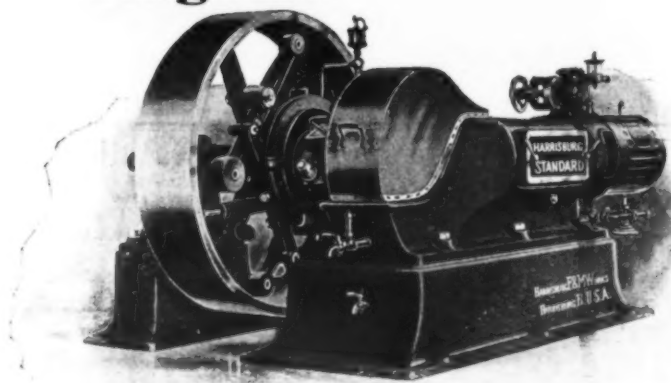
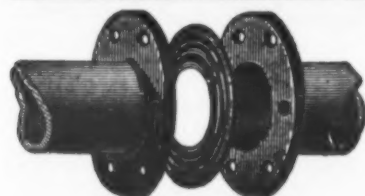
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**Valley Automatic Engine**

RUGGED, COMPACT AND DURABLE  
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SHAFTING APPURTENANCES  
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HARRISBURG STANDARD SELF-OILING ENGINE  
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HARRISBURG, PA., U. S. A.Joints are made Absolutely Tight and Durable  
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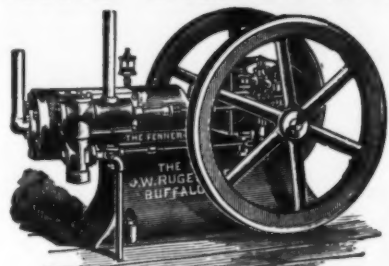
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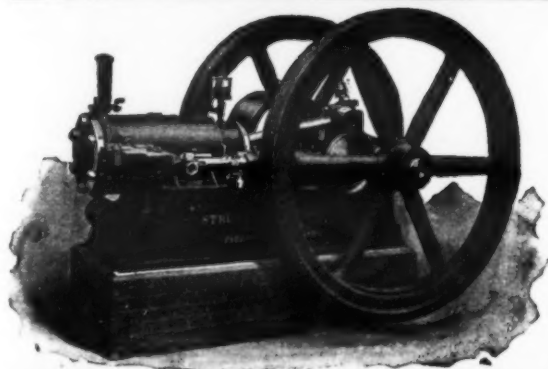
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Highest Efficiency for Electric Lighting.  
Giving a Regular Steady Speed.  
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Being Clearly and Perfectly Safe.  
Write for our new Catalogue and state kind of work you require engine for, amount of power, and whether you will use gas or gasoline, and we will make you proposition that will bring the order.  
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SIMPLE.  
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EXCEL ALL OTHERS IN DESIRABLE FEATURES.  
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Leads all others in  
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For all power purposes. Burns kerosene oil. Is Safe, Automatic, Durable, Reliable. Let us tell you more about it.

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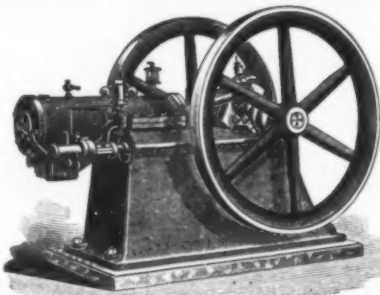
Some manufacturers have had the idea that the prices for our Engines are high. They are high priced only when compared with machines which are greatly inferior in quality and efficiency.

Your steam engine cannot be too good. The mills and factories which are making the largest profits use only the best machinery.

Let us tell you about some of the establishments we have equipped. Write for Catalogue.

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OBSERVE ITS SIMPLICITY.

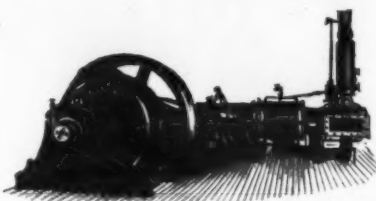
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WORKS AT NEWPORT NEWS, VA.  
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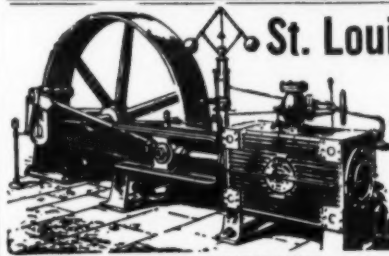
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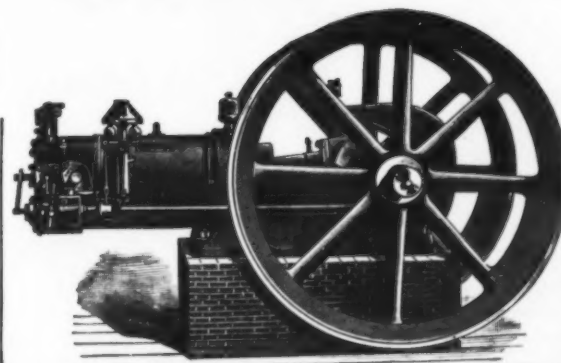
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ALL SIZES.

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50,000  
IN USE



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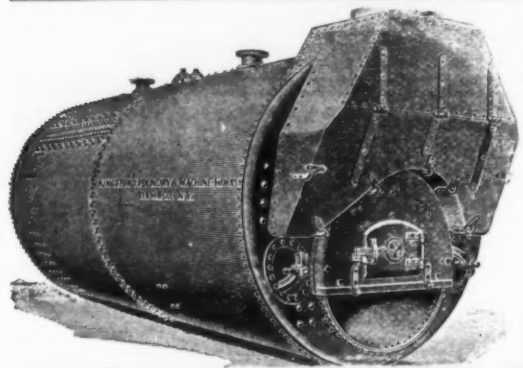
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High-Grade Contract Work  
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Of the Internally Fired  
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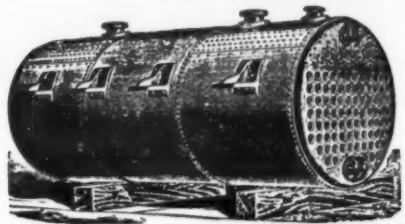
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FOR

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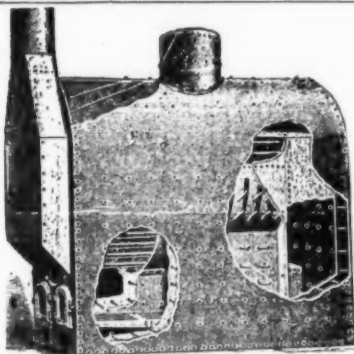
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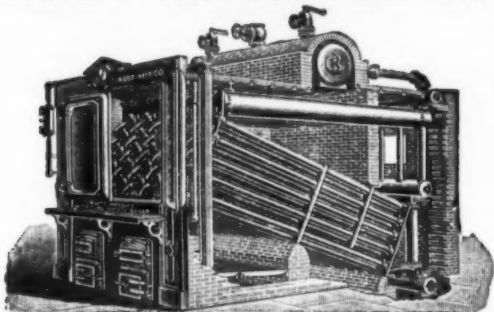
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Only 6½ ft. wide by 8 ft. long.  
In Steamers, Paragon and Bissell.  
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And saves half of fuel bills.  
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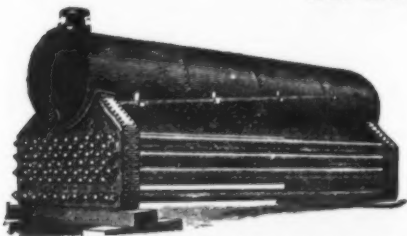
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Modern Water  
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Send for Helios, a text book of modern boiler practice. FREE.

UPRIGHT and HORIZONTAL

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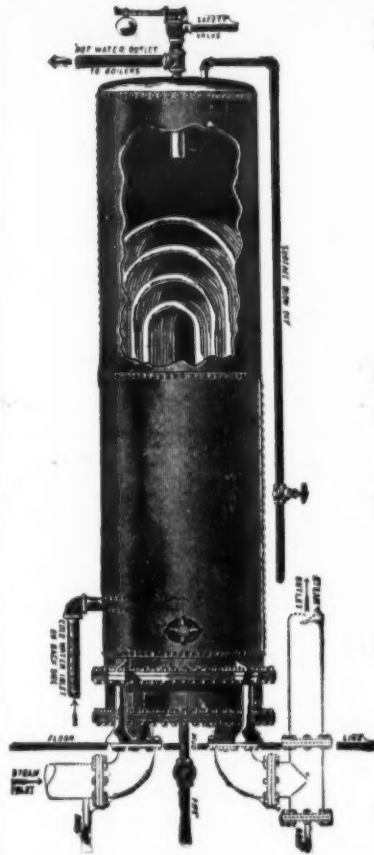
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PROVIDED WITH  
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It Never Leaks.

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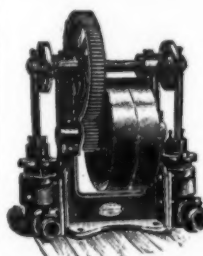
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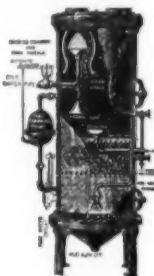
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Write for prices  
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POWER PUMPS of All Kinds.

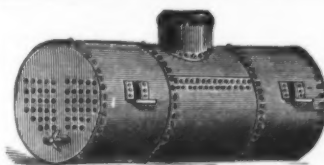


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Boilers, Stand Pipes, Tanks,  
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Boilers practically indestructible.

Fuel go further

The fireman carry the water steadily at the proper level.

AND, ASIDE FROM THESE

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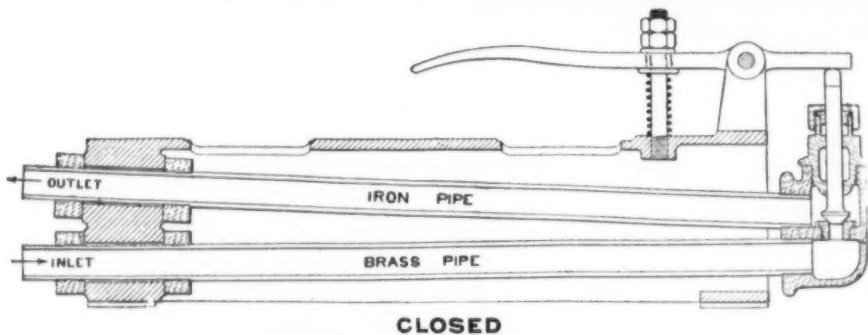


**THE RELIANCE GAUGE COLUMN CO.**

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**ENGINEERS** In Charge of STEAM PLANTS **NOTE!**

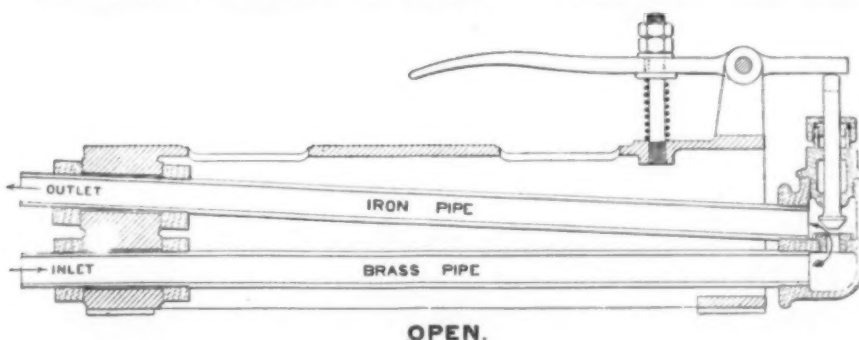
Steam Saved  
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# GEIPEL'S PATENT STEAM TRAP

Always closed when steam is in the Brass Pipe—Always open when water is in the Brass Pipe. Guaranteed Positive in its Action.

SENT ON APPROVAL FOR ALL PRESSURES.

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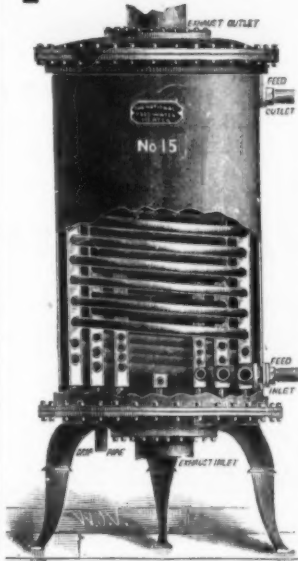


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## Some Points of Excellence

Of the

## National Feed=Water Heater.



It delivers water to the boiler at 210° F.  
No inside joints to leak.  
No straight tubes to leak.  
No back pressure is possible.  
No contact of water with shell or iron.  
No chances of grease in boiler.

**Economizes Coal and Space.**  
**900,000 H. P. in Daily Use.**

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**COILS and BENDS**  
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**COPPER PIPE.**

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Is Simple, Compact and Reliable and used by the leading consulting engineers and high-class engine builders of the world. Also made with Electric Attachment.

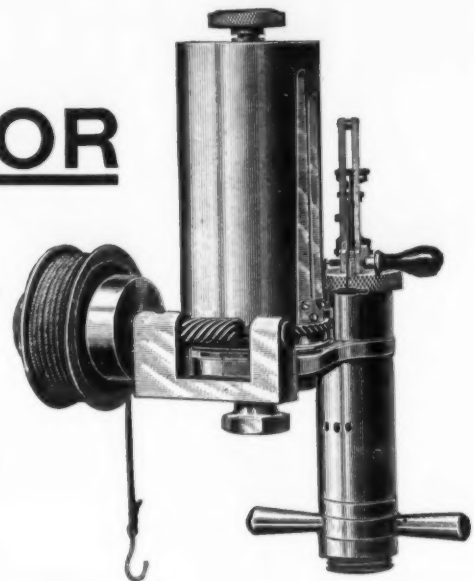
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INJECTOR.

### The Sherwood Double-Tube Injector...

NEW MODEL.

Operated entirely by one lever. Simple in Construction. Works on any pressure from 15 to 200 pounds. Will work hot water. Will lift 24 feet. Requires no valves. Is the best on the market.

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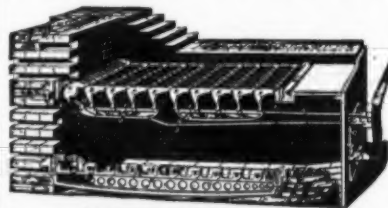


THE BEST DEVICE FOR THE PURPOSE MADE.

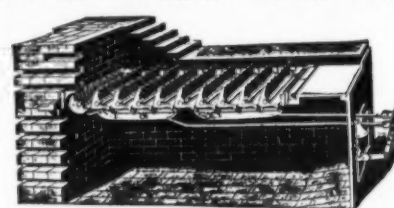
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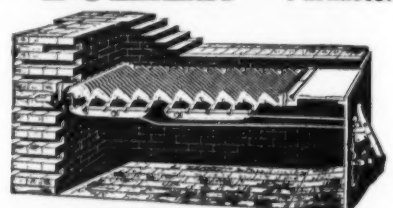
### McCLAVE'S IMPROVED GRATE and ARGAND STEAM BLOWER For BOILER and Other Furnaces.



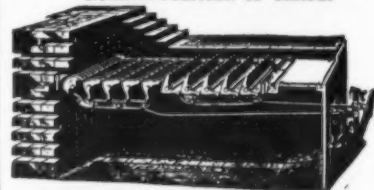
NORMAL POSITION OF GRATE.



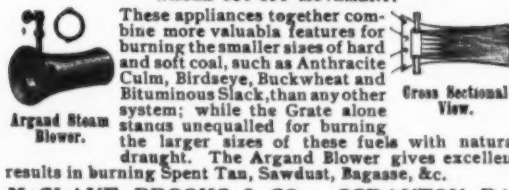
WHOLE CUT-OFF MOVEMENT.



SHAKING MOVEMENT.



DIVIDED CUT-OFF MOVEMENT.



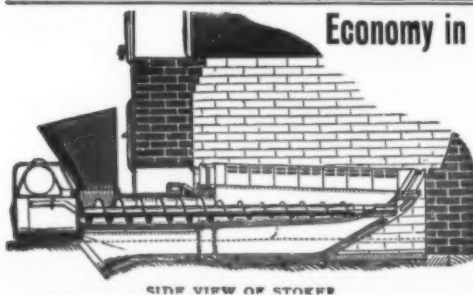
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These appliances together combine more valuable features for burning the smaller sizes of hard and soft coal, such as Anthracite, Culm, Birdseye, Buckwheat and Bituminous Slack, than any other system; while the Grate alone stands unequalled for burning the larger sizes of these fuels with natural draught. The Argand Blower gives excellent results in burning Spent Tan, Sawdust, Bagasse, &c.

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DIVIDED CUT-OFF MOVEMENT.



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Economy in Fuel, Prevention of Smoke, Increase in Capacity are not only claimed, but Guaranteed

BY THE USE OF THE

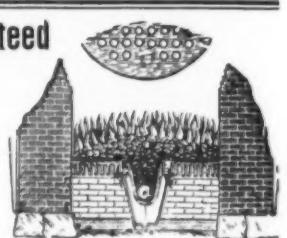
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COMPACT  
POSITIVE  
PRACTICAL

The fact that our Stoker has no mechanical parts in contact with the fire distinguishes it from all other forms of Stokers and insures a low cost of maintenance. As our system is not dependent upon natural draft, it is especially adapted to meet the requirements of a variable power demand.

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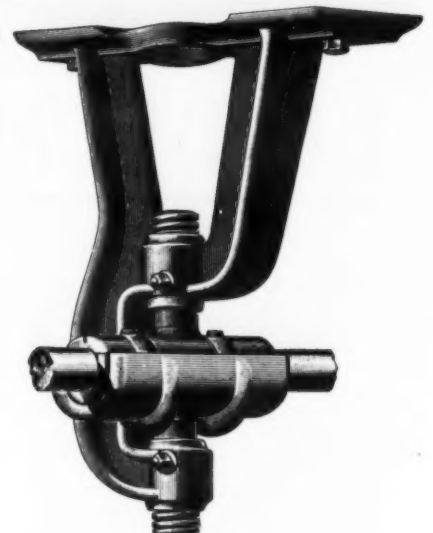
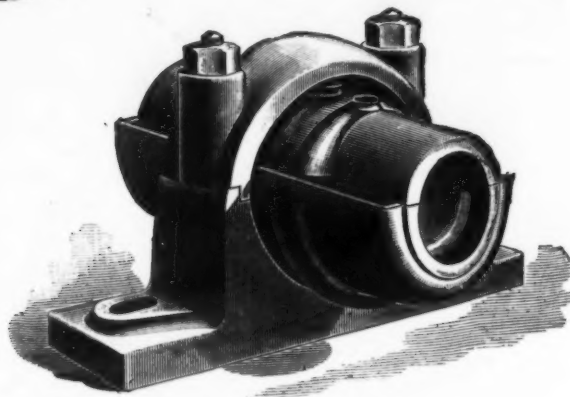
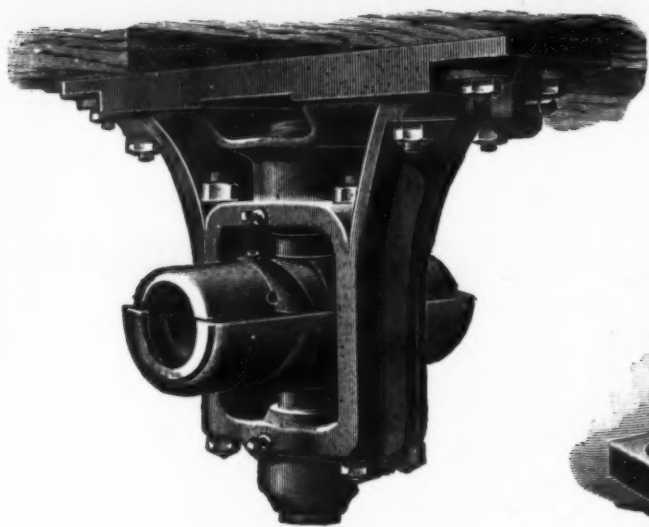




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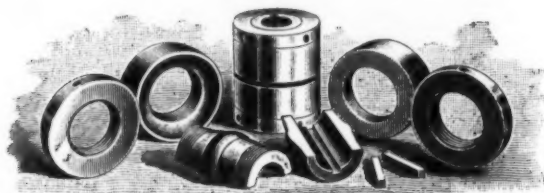
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Steel Shafting, Couplings, Pulleys, Sheaves,  
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All 3-4 inch.

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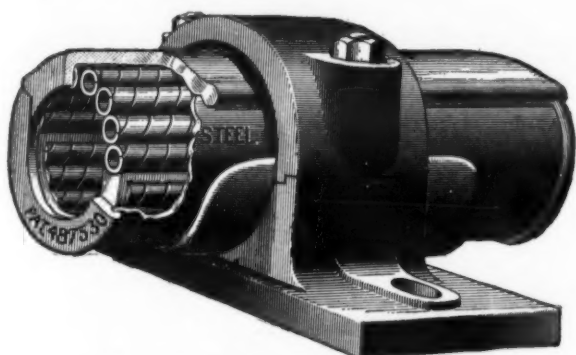


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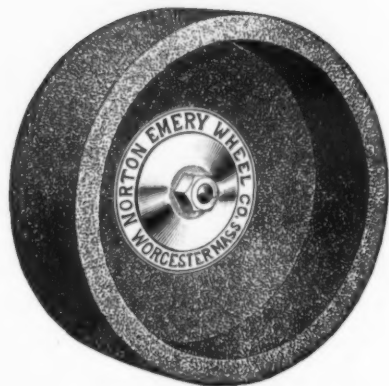
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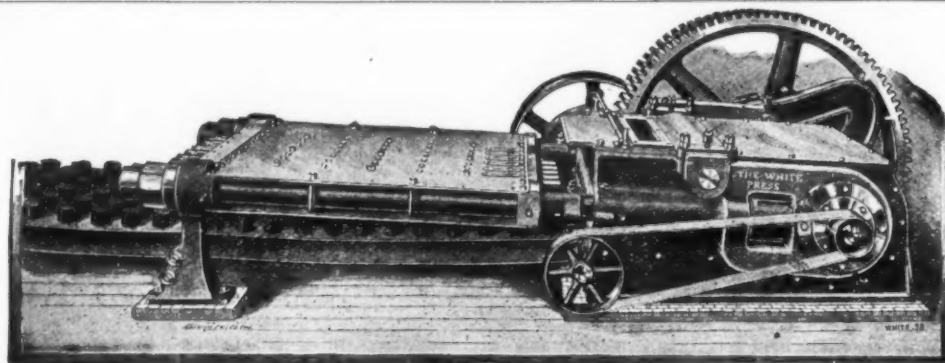
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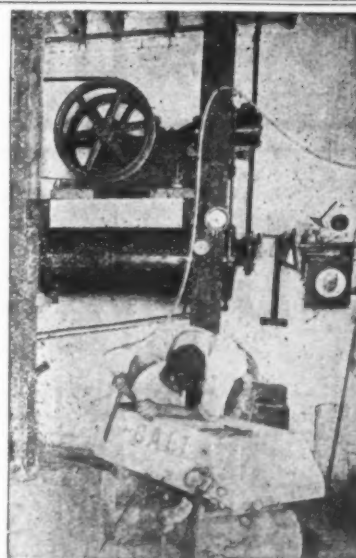
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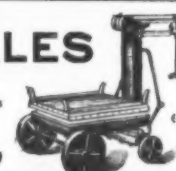
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A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXXV. No. 24. }  
WEEKLY.

BALTIMORE, JULY 7, 1899.

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BALTIMORE, JULY 7, 1899.

One of the most gratifying features of the commencement of the Georgia School of Technology was the announcement by President Lyman Hall that an additional \$6000 had been given to the textile department of the institution. Mr. Aaron French of Pittsburg, who already had given liberally to the institution, contributed \$3000, and the other \$3000 came from Col. J. W. Rucker of Atlanta. It is no wonder, with these two gifts in mind, that the audience became enthusiastic, but that enthusiasm, to be of any use, should take the form of duplications of the gifts. The textile department of the school is starting with excellent prospects. It is an educational feature that is needed in Georgia, and it cannot be too warmly supported by practical acts on the part of the men who wish the textile industry of the State to reach its full capacity.

### Chance for the South.

The meeting of the so-called anti-trust conference at St. Louis in September may be turned by the South to its own great advantage. Apparently politics will dominate the conference. Invitations to it have been limited to governors and attorney-generals of the different States, and the average governor and the average attorney-general cannot, as a rule, escape being a politician. It is true that party lines have not been observed in the call for the conference or the invitations to it. That might be regarded as a hopeful sign were it not generally recognized that when politicians of both parties can afford to meet on a common plane the masses of the people had better be alert to their own interests.

The question to be discussed at the conference is an economic one in the main, and should be settled without the interference of officeholders and office-seekers. Experience has taught that the usual result of mixing politics with an economic question is a confusion of the issue in which politicians are enabled to maintain their hold upon office at the expense of the people, who continue to suffer an aggravation of the evils arising from attempts to thwart natural processes by legislation intended to carry a campaign, rather than to benefit the masses. A bane of the South has been the proneness of many of its politicians to sacrifice its

material interests to politics, politics in this case meaning not skillful maneuvers to induce federal legislation of benefit to the South, but combinations whereby they continue to draw salaries.

The time has come for the South to make the politician a minor influence in its affairs, and thereby to remove the great incubus from its industrial life. The cultivation of public opinion discouraging any more political scintillation as an outcome of the St. Louis conference will be an important step toward minimizing the influence of the politician and counteracting its deleterious effects upon the South.

### China and the South.

In a discussion of cotton-manufacturing in the South the New York Journal of Commerce reviews the advantages of that section over New England, but apparently does not believe that those advantages will count for much unless the South shows greater interest than at present in the development of markets in the East. It says:

There is a considerable diversification of product in the cotton industry of the South, but the major portion of the mills are dependent on the heavier fabrics, and these are mainly dependent on export demand. In other words, a number of Southern mills would be unemployed but for the demand furnished by the markets of North China. It is here that an outlet is found for the heavy drills and sheetings that can be manufactured so advantageously in the South, and it is here that the greatest possibilities exist for an enlargement of the present consumption. It may be assumed that a perception of the dependence of this growing Southern industry on the maintenance of freedom of commercial opportunity in China will move the representatives in Congress of that section of the country to take a new view of what are called the problems of national expansion. They have, up to date, taken what must be called a hopelessly provincial view of that subject, and have had the narrowest possible conception of its bearing on the necessities of national growth. Yet the people of no part of the country have so direct and vital an interest in the kind of policy which our government proposes to adopt for the defense of American interests in the far East as the people of the South. It is inconceivable that this fact should be much longer ignored by their political representatives; it will certainly be the fault of Southern manufacturers and the communities dependent on their prosperity if the Southern delegation in Congress continues to be hopelessly insensible to considerations touching their immediate interests.

The interest of the South in the East has been strongly expressed also by Mr. Barrett, formerly United States minister to Siam, who makes the following assertion in connection with a demand for an isthmian canal of particular moment to the South:

The South has such a particular interest in the development of our Asiatic markets that there should be widespread interest in the Pacific opportunity from the Roanoke to the Rio Grande. The developing demand, both for raw cotton and for manufactured cotton from the South, is one of the most interesting features of Oriental trade. The raw cotton which the South is sending to Japan, and which she may send to ports in China, is only a slight measure of what may be sent in the future. The particular market for Southern mills is Manchuria, and, therefore, they have a special concern in

seeing that Manchuria is never closed to them. Not more than one-thirtieth of the population of Northern China has yet been reached in this market. If the entire field shall ever be covered it will require all the cotton mills in the South to supply the demand.

From a variety of sources, English as well as American, come reports that Chinese consumers are anxious for heavy cotton goods like those made in this country. Not long ago a statement was made by the chairman of the Shanghai Chamber of Commerce showing that in ten years there had been a decrease of 13.77 per cent. in the quantity of imports of plain gray and white cotton cloths from England and Indian sources into China and an increase of 121.11 per cent. in the quantity received from the United States, which led the Manchester (England) Guardian to say that it seemed certain that the shipments of American goods to China markets were now a prominent feature of America's foreign trade and one deserving the attention of Lancashire producers.

The position taken by the Journal of Commerce may be an extreme one, but the facts of the case justify it in its strong plea that the South should relinquish none of the advantages which it possesses by failing to seize the opportunities before it in the East. Conditions in China are such that a slight turn of the wheel may either block American chances there indefinitely or produce a wonderful expansion of American markets. The men who are most interested in the maintenance of the textile industries of the South and its future growth must do their part to impress upon public opinion the vital necessity of preventing the wheel being turned in the wrong direction.

### A Right Campaign.

In spite of the political campaign now raging in Mississippi some of the papers of that State have found time to give their attention to matters affecting the material interests of the State. The Aberdeen Examiner, for instance, is pleading for self-help in building up the industries of the community. It takes the ground that it is idle to talk about interesting outsiders in a cotton factory at Aberdeen as long as several hundred thousand dollars lie in the banks of the city. It argues that if one-sixth of this idle money should be invested in a cotton factory the other five-sixths would find active employment. The Yazoo City Herald boldly asserts that railroads, factories and manufacturing enterprises have done more to build up the State than have some of its governors and politicians. While, with equal boldness, the Port Gibson Reveille says:

The trouble is that instead of encouraging these industries the average State legislator and certain well-known politicians are doing all in their power to prejudice people against them. The man who tries to poison the public mind with these anti-improvement ideas is nothing less than an anarchist. Regardless of everything pertaining to the welfare of the State and South generally, such men leave nothing unturned to pro-

mote their own selfish gains, and they would serve a better purpose were they forced to do duty on the State farm.

These be strong words, but they are true, and are applicable to other States than Mississippi. More Southern papers should preach from the text of the Reveille, and should not only preach from it, but should preach from it in double-leaded breviter on the front page, while dealing with politicians in agate at the bottom of the last column of the last page, if at all.

### To Build Up Cities.

At the last meeting of the Commercial and Industrial Association of Montgomery, Ala., Mr. L. L. Gilbert, the secretary, made a strong plea for measures whereby Montgomery may become a well-grown metropolis and center of manufacturing as well as one of trade and commerce. He argued that any community dependent upon one industry for its success is not well balanced, and that a town grew to a city of substantial attainments only by persistent efforts to develop all its possibilities. He said that the position of Montgomery, between the coal and iron on one hand and the timber on the other, in the midst of a prosperous agricultural region and a center of railroad lines, is destined to be the largest inland city in the South, but such a position could not be obtained if Montgomery should fail to impress upon manufacturers its resources of cheap material, cheap power and fuel, cheap labor, low taxes and reasonable transportation facilities. He made the following suggestion:

We should this year enter upon a vigorous campaign for small manufacturing enterprises and convince them of the superior advantages possessed by Montgomery. We should start a guaranteed fund of \$20,000, to be expended for this purpose alone, i. e., bearing the expense of removing successful enterprises and securing them desirable locations in Montgomery. We are now negotiating with a manufacturer employing 150 hands, doing an annual business of \$75,000 and spending \$20,000 a year in pay-rolls. It will cost him \$1000 to move, \$2000 for a building, \$3000 for a desirable site, and he will lose one month's business doing it. We can bring him here, I believe, for \$2500, and perhaps less. This matter will be placed in the hands of the manufacturing committee, who will develop a plan for raising this money and communicate with you later. Be ready and willing with your response. If you have a good, live suggestion for raising this sum, submit it to them. They will be glad to receive it. Only remember, a city gets industries just like a merchant does trade—by going after it.

There are many Southern communities like Montgomery which would be greatly benefited by adopting the suggestion of Mr. Gilbert, that the methods followed by merchants in building up trade should be followed by a city in developing its resources. Whether it is always wise to offer a bonus to a manufacturer to settle in a community is a disputed question, the answer frequently depending upon individual circumstances, but any plan whereby the advantages of a city for manufacturing in the way of labor supply, taxation, closeness to raw material and markets may be promptly and properly im-



pressed upon enterprising investors is to be commended and should be supported by every member of a community. Carried out intelligently, and backed by a willingness of local capital to unite with that coming from abroad, it will place any city in the position for which it is fitted.

#### Why Gulf Ports Grow.

The perennial contention at New York that by some way or other its rival ports are taking unfair advantage of it lacks unanimous support in New York. For example, the Wall Street Journal believes that terminal charges at New York have a great deal to do with diverting the trade, inasmuch as everything has to be handled by awkward and expensive methods. It mentions Galveston as one of the ports possessing combined natural and artificial advantages against which New York is contending with its disadvantages. It says:

From Superior, Neb., the northernmost point on the Santa Fe system, Galveston is about the same distance as Chicago, and thus 1000 miles of transportation is saved to the corn and wheat growers of that region in reaching the seaboard. The farther west, the farther from tidewater you go, the lower is the price of wheat and all exportable products, for their value is usually fixed in London, the world's greatest market. Therefore, the Galveston line reaches the cheapest source of the winter wheat and corn supply in the country. About three years ago grain began to go that way, when the harbor of Galveston was ready to receive big ships. Until then the movement of tonnage was east and west, on latitudinal instead of longitudinal lines, and the larger portion of money invested in railroads was spent to build up that trade. The Santa Fe Company spent \$1,000,000 last year to reduce its grades, build new bridges, lay heavier rails and make other preparations for what it believes will some day be a large and profitable business.

The rates on grain from Central Kansas to Galveston are about five cents a hundred higher than to Chicago, which is nearly the same distance, because there is no return freight, but the shippers save thirteen cents a hundred from Chicago to Baltimore and fifteen cents a hundred to New York. This makes a difference of about \$2 a ton, or \$40 a car, in favor of the Galveston route, and the steamship lines from Galveston give rates to London not more than \$1 a ton higher than those charged from the Atlantic ports. The result has been an enormous increase in the grain sent that way. The total exports from Galveston in 1888 were valued at only \$15,700,147; in 1898 they were \$68,428,621, and the promise for the future is a steady growth in a similar ratio. The Eastern railways look with dismay upon this diversion of their traffic, but there is no way to prevent it. They cannot haul cargoes any cheaper than they do at present, and exportable products, particularly low-priced freights, will seek the seaboard by the shortest or cheapest route just as naturally as water runs down hill.

The concluding sentences of this comment are very encouraging to Southern ports, but they should not permit a relaxation of energies or alertness. Enterprising men interested in transportation undertakings have more than once made the water of commerce in this country run up hill. They are capable of attempting the same miracle again, and the Southern ports and everybody caring for their development should be watchful of every movement, whether at home or abroad, which seeks to clog the channels contributing to their growth.

#### For Minor Industries.

In preparation for the recent commercial convention at Louisville, its secretary sent to bankers in various parts of Kentucky asking what industries should be established in their respective towns. The answers from eighteen typical localities are suggestive of the opportunities in the State for small in-

dustries. Note was made of the fact that at Catlettsburg natural gas for fuel, cheaper than coal, and an abundance of oak, yellow poplar, ash, walnut and hickory timber at remarkably low prices are contiguous. At Maysville a pulley factory, cotton mill, plow works, foundry and brick works are working to their full capacity. At Middlesborough the need of flour mills, spoke factories and other small enterprises, for which fuel abounded, was suggested. Other suggestions were a stave and spoke factory for Pineville; a concern for tanning and one for working second-growth hickory spokes, tool handles, buggy hubs, felloes, tongs and singletrees at Clay City; a woodenware factory at Frankfort; a hemp factory at Lancaster; an oil refinery at Monticello; a furniture factory and woolen factory at Burksville; a plug-tobacco house at Russellville; a beet-sugar factory, a knitting mill, a tannery and a foundry and wagon factory at Bowling Green; an ice factory at Central City; a woodworking factory at Henderson; clay works at Eddyville, and water-works and electric-light plant at Wickliff. In nearly every case these suggestions are accompanied by statements of the reasons why the establishments mentioned would be good investments. They are recalled here to indicate in a slight degree the great possibilities in the South for minor industries either handling or dealing with the products of the primary improvements in cotton, iron and lumber.

#### Texts for Development.

At the recent meeting of the Louisiana Press Association the press of the State was earnestly requested to unite in the advocacy of the following special measures:

The erection of cotton manufactures at every point in the State offering the requisite facilities.

The creation of other manufactures for which the State embraces so varied and numerous material.

The creation of new inventions and the perfection of those already in existence.

Speedy completion of a canal across the Isthmus of Panama, and the extension of our commerce in Latin America.

Public improvements of every kind.

Diversification of production.

This request was born of the conviction that time has revolutionized trade and industrial methods; that the people of Louisiana must adapt themselves to changed conditions; that enormous crops of raw cotton are causing embarrassment, and that the example of the people of the Carolinas, Georgia and Alabama in successfully engaging in cotton manufactures might be profitably followed by Louisianians.

The press of Louisiana might well occupy its time in developing public opinion and public action favorable to the projects mentioned. Louisiana has by no means accomplished its destiny, which rests upon the balancing of agriculture, manufactures and commerce. Its press can be an important factor in bringing about this balance, and a thoughtful and vigorous treatment of the six suggested topics with those akin to them is sufficient to occupy the attention of the newspapers for several years, exclusive of any mention of any kind of politics. The difference between a political editorial and an industrial one is that the former usually means a waste of energy, time and money, and is, therefore, consumptive, while the latter is productive, tending to encourage the farmer

and merchant, as well as the manufacturer and the people living in a community where an industry has been established. The action of the Press Association could have been well supplemented by a resolution and determination to abhor for several years political writing.

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[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., July 3.

Mr. John E. Searles and Abram S. Hewitt of New York and some leading New York and Boston associates, the International Trust Co. of Baltimore, Middendorf, Oliver & Co. of Baltimore, John L. Williams & Sons of Richmond and others have formed one of the most important coal and iron consolidations ever effected in the South. The Alabama Iron & Coal Co., which they have organized with a capital stock of \$5,000,000, all of which has been underwritten, has purchased the Clifton Iron Co., one of the most noted iron properties of Alabama, owning 30,000 acres of land and two furnaces; the Standard coal property, a regular dividend-paying coal-mining property, owning 32,000 acres of coal land; the Mary Pratt furnace in Birmingham, the Gate City properties which were purchased some months ago by Baltimore and Richmond interests, and the Gadsden (Ala.) furnace and large ore properties in connection therewith. The consolidated properties will cover about 70,000 acres of land and four furnaces. Contracts are being let for the enlargement of three furnaces and for trebling the coal output and coke ovens. All of the work of improvement on the furnaces and new coke ovens, it is estimated, will be completed within about four months, when the company will have an aggregate capacity of 180,000 tons of pig iron a year and a daily output of 2000 tons of coal.

All of these properties have been examined by the ablest experts, including Ricketts & Banks of New York, J. P. Witherow of Pittsburg and Nicholas S. Hill, Jr., of Hill & Howard, Baltimore. Their reports indicate that these are among the most valuable coal and iron properties in the South, and the record of large profits made during the past demonstrates the correctness of these statements.

It is thought that the company will have the best combination of brown ore and red ore and of high-grade coking coal of any company in Alabama, and with its furnaces located at the most available points for the cheapest production of high-grade iron, it is estimated that even should iron ever return to the low prices prevailing two or three years ago, this company would still be able to make iron at a profit.

The reports of the experts show that the ore lands of the company will furnish a sufficient supply of ore for all of its furnaces for 100 years to come, and that the available coal which can be mined, without taking account of the deepest vein, is equal to an output of 2000 tons a day for 150 years.

Mr. T. G. Bush, president of the Clifton Iron Co., one of the most noted iron men of Alabama, will be president of the consolidated company, and Mr. F. M. Jackson, general manager of the Standard Coal Co., who has operated that property for the last ten years, will have general charge of its coal and coke interests.

The options on some of these properties were secured eight or ten months ago before the present activity in iron commenced, and it would not be possible to duplicate them at present. The most careful and conservative investigations

have been made, demonstrating that the combined properties will be one of the strongest iron and coal enterprises in the country.

The properties will be paid for in full, all improvements and enlargements of operations of mining and coke and iron-making have been provided for, and the new company will start without any indebtedness of any kind, as no bonds are to be issued, and with ample cash working capital. This great enterprise, which will prove of so much value to the South, is one of the first fruits of the tour of investigation of that section made by Mr. Searles last winter, accompanied by the editor of the Manufacturers' Record. Mr. Hewitt, one of the leading iron men of the world, will be one of the directors.

#### IN THE BIRMINGHAM FIELD.

##### The Record of Combinations in Large Industrial Operations.

[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., July 4.

There was a fair market the past week, and prices were firm. But there were no large orders for long delivery, and some orders for nearby delivery had to be declined. Some gray forge sold at \$13, 2000 tons going in one lot. It also sold at higher price. No. 3 foundry is quotable at \$14. The trouble is to get the iron. No. 2 foundry sold at \$15, and some at higher values. Some firms declined all orders for nearby deliveries, while some accept only for grades in stock. One interest is totally out of the market. Export trade amounts only to the completing of unfilled orders. It shows no new business. Stocks continue nil in furnace yards and are being daily depleted in warrant yards.

The Tennessee Coal, Iron & Railroad Co. announces that on the 1st inst. it assumed control of the property of the Sheffield Coal, Iron & Railway Co., and it would be managed as is its other property from the central office at this point. The output will be sold, as is the output of its other furnaces, through its usual sales agents, to whom price and terms will be given from office here. This addition to furnace capacity makes the total number operated by the Tennessee Company twenty-one. Of course, no other furnace property in the South approaches it, and it is claimed that in furnace property and lands it leads all the iron interests of the world.

The Sloss Iron & Steel Co. has been forced to imitate the action of the Tennessee Company in order to maintain its position in the iron world, and it, too, has been securing some Sheffield properties. In short, it has taken what the Tennessee Company left. This includes the Philadelphia furnace, said to be in fine condition and located near Florence, as also the Lady Ensley furnace, situated at Sheffield. What is known as the Hattie Ensley furnace is in an unfavorable position for negotiation at the moment, but it may yet be owned by the Sloss Company. In addition to the furnace properties, it is stated that it has secured additions of importance to its ore and coal properties. These additions will enable the Sloss Company to approximately double its output. The Sheffield property will be managed also from the Birmingham office; in fact, all that the Sheffield end will do will be to make the iron and ship it as directed. Now comes in another combination that includes the Clifton furnaces at Ironaton, the ones at Gadsden and the Standard Coal Co., particulars of which are given elsewhere. There is still another, by which the Talladega furnace and the Birmingham & Atlantic Railroad have found the same owner. The price of \$123,000 was paid for the furnace.



The railroad will connect Talladega with Pell City, the end of the East & West Railroad, and giving connection via the Southern Railway to the Seaboard and intermediate points. When the Seaboard extends the East & West road to this point the Birmingham & Atlantic Railroad will be a good feeder to it. Still there is another combination of furnace property and ore and coal lands, which your correspondent cannot yet mention, that will help swell the aggregate. At its head are men of experience, clear heads and good judgment. This one will probably end the combinations.

But there are other deals of importance in course of treaty. All differences between the Republic Iron & Steel Co. and the rolling mills are about settled, and the transfer of possession occurs this week. Just what improvements they will add and what changes they will make they have not yet definitely decided upon. Their orders are at present so large and their capacity so hard taxed that much of what they intend to do must be postponed to a more convenient season.

J. M. K.

#### Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]  
Philadelphia, Pa., July 6.

The iron trade is, remarkable to say, quiet. Since the writing of last report buyers have been withdrawing from the markets and telegraph messengers have not been darkening the doors of our offices so often. We look for a quiet week or two, and would be glad to welcome a quiet time for a month. This is the stock-taking and repairing season, but a minimum of each will be indulged in, as there is no stock on hand to speak of. All the furnace and mill interests are overcrowded. An expansion of capacity is in progress all over our Eastern territory of which very little is said. The outlook is improving. There is no sign of reaction. Orders are hung up for future consideration. A large volume of business could be done if mill men were able to make room for it. Pig iron has moved a peg higher since last week. It is likely to go higher. Bessemer has reached \$20 at furnace on its way to \$25, and this means an advance of all other kinds in this market. No. 2 X foundry is selling very well here. Gray forge is quiet, but we count on a rush next week, and that \$17.25 to \$17.50 will be the ruling price. Billets are supposed to be \$34. Plates are close to 3 cents. Locomotive builders continue to be large buyers. There is a rush for boiler plate, and mills are strained to keep their customers quiet. Pipe and tubes are quiet also, but there are large orders to be provided for this month. Buyers are insisting on absolute assurances of deliveries. Delivery is more important than price. Merchant steel can hardly be had for love or money.

The week is quiet, however. There has been very little business done. Office men are busy with their accounts. News from Pittsburg is assuring that there will be no long serious strike trouble. We may and likely will have a week or two of comparative quiet. The men will have no respite from their hard work. All manufacturing capacity will be kept at top notch all summer. Stock will be accumulated if possible.

The prospect today is that the upward tendency in prices which has continued all spring will not abate. A great deal of work is laid out for the last half of the year of which very little has been said. There is railroad and bridge and car work that must be done, and the material is very largely, but not altogether, provided for. If manufacturers continue to pursue their policy there will be no great

advances in prices. Nearly everything is sold up for the rest of the year.

The steel-rail makers report large orders in sight for August and September, but managers who have been getting rails at \$20 and under do not relish paying \$28. Old iron rails are wanted, and scrap is all cleaned up.

The anthracite trade is quiet. Prices have been advanced 25 cents per ton. The bituminous trade is very active.

#### IRON IN TEXAS.

General Claiborne Discusses Its Great Possibilities.

In an address before the Texas Real Estate Association Gen. John M. Claiborne of Rusk, speaking of iron in Cherokee county, said:

"In 1882 the State concluded to build an iron-smelting furnace at Rusk in order to work the iron ore of the section into pigs. For years this furnace has been making a pig equal to Scotch pig iron, and for some purposes superior. A majority of the car wheels now in use on roads entering Texas are made of the iron from the hematite ores of Cherokee county.

"Today the State pipe works turn out the best water pipe made anywhere. For all strong structural work it is superior to any other made.

"Altoona, Pa., makes a car wheel guaranteed a life of 70,000 miles. At Houston are made car wheels from the Cherokee iron guaranteed a life of 100,000 miles and some of them have a life record of over 150,000 miles. It costs to make of charcoal a ton of pig iron (short) \$7.80. Recently a test was made of lignite or brown coal as a fuel, and the cost of making pig iron will be reduced about \$1.90 per ton. Lime for fluxing purposes is within twenty-eight miles of the furnaces, and of good quality and in large quantity, which will also decrease the cost of making pig \$1 to \$1.50 per ton, or within seventy-five cents per ton of the cost of pig iron at Birmingham, Ala., or in Pennsylvania or Lake Superior.

"There are two furnaces at Rusk, the Star and Crescent and the Old Alcade. The two have a capacity of eighty tons per day. There is a 50-ton-per-day furnace at New Birmingham.

"The question is asked why are the private furnaces not in blast? In reply I will say that Texas is the only State (except Arkansas) that fights by legislation cheap money. Alabama, Pennsylvania and Tennessee are using 3 and 4 per cent. money, and Texas, owing to ill-advised legislation, is forced to use 8 and 10 per cent. money, and even this is always scared because of the fear that some of the men or their sons might get into the legislature and by an act 'stab' by 'ex post facto' law, as was done in the alien land law of eight years since. Legislation of the past two years has kept down all productions and progress in my section. \* \* \* The iron ores of Cherokee county are practically inexhaustible. It is calculated by experts that there is surface brown and red hematite ores enough within five miles of the furnace to operate 100 50-ton furnaces for 200 years; the ore is obtained on top of the soil or by stripping the surface from one to three feet; the top stratum has an average of eight feet in thickness, while there is another twelve to twenty feet below of a greater depth, but of a different class of ore, paying in metallic iron only 38 to 40 per cent., with now and then a pocket going over this assay.

"It is only a question of time and demagoguery when this section will be among the leading manufactories of iron products in the world. It now has a \$20,000

foundry where hollowware, stove plate, mantels, lintels, dog and sad irons, house fronts and all character of castings are made, competing in quality and price with any market or anywhere."

#### MILLS AT FAYETTEVILLE.

Industrial Progress Encouraged by the Chamber of Commerce.

[Special Cor. Manufacturers' Record.]  
Fayetteville, N. C., July 3.

Fayetteville, N. C., is at the head of navigation on the Cape Fear river, 120 miles above Wilmington. The town is built on the west bank of the river, its center being about a mile away from the stream itself, which at the lowest water mark is sixty or seventy feet below the level of the streets. The west end of the town is known as "Hay Mount." Here are the residences mainly. They are built on a bluff rising over 100 feet above the town. Its streets are wide and beautifully shaded by the wide-spreading branches of old elm trees. Running through the town are two pretty streams of water. Years ago these actually crossed each other before being lost in the waters of the Cape Fear. This fact gave the name of "Cross Creek" to the place, which was changed after La Fayette's visit here to Fayetteville, in his honor.

Within a few months past this place has been exhibiting many signs of new and progressive life. The Chamber of Commerce has been reorganized, and has already been the means of promoting and encouraging such enterprises that mean a great deal for the future of the place. Mr. A. H. Slocumb is president, and Mr. F. R. Rose, secretary. These gentlemen are ready to give every information about this section, and they invite correspondence.

Several important manufactures are now being added to the industries of the town, and more are in sight in the near future. Some of the Holt family, who are so well known in the United States as manufacturers, have been attracted here by the section's advantages, and the third large group of mills in which they are part owners are now rapidly being built here. Messrs. Tolar & Hart of New York are interested with them in this last enterprise. Messrs. Ashely & Baily of Paterson, N. J., are pushing to completion their large silk mills, while the Reynolds Company of Syracuse, N. Y., are now placing \$30,000 worth of new and improved machinery in a mill already erected.

Fayetteville is also taking up the tobacco industry, which has proved so profitable in other places. A mammoth tobacco warehouse is rapidly being built, to be followed by others in the near future. A large acreage has been planted in tobacco this season. The "weed" raised in this section is pronounced by experts to be brighter and to mature earlier and to fetch better prices than that of the Piedmont section of the State.

Fayetteville has a fine climate the year round. It is in the sand-hill, balsamic pine belt, thirty miles south of Southern Pines. It is blessed with pure air, good water, and with as fine a people as anyone would wish to live among. A warm welcome is accorded to strangers, especially to those who wish to settle here. There are no race or labor troubles. The town is on the splendid Atlantic Coast Line. Subscriptions are being made to the new Bank of Cumberland at this place. Fayetteville affords many advantages for the establishing of the following industries: A glass furnace and factory, a crate and fruit-basket factory, a fruit and vegetable-canning factory and a clothing factory.

F. R. R.

#### FLORENCE INVITES CAPITAL.

Healthy Growth of Industry in the South Carolina City.

[Special Cor. Manufacturers' Record.]  
Florence, S. C., July 3.

Among the towns of the South that are showing the effect in a marked degree of the revival of trade, none are making more substantial progress than this Gate City of South Carolina. The growth of Florence within the last few years has been steady and healthy. One of the chief factors in this growth has been the support of the most fertile and productive of the rich farming lands in this State, which, by the way, holds a proud agricultural record. The rapid advance that South Carolina tobacco has made in public favor and the readiness with which the farmers have entered into the cultivation of this crop has practically redeemed this section from the oppression of debt that threatened under the old order of things. Industrial enterprises have taken on a new and a steady growth, and the enterprise of the people is seeking new and broader fields. The people of Florence have not hesitated to show their faith in their town by their works, and they have contributed as liberally as their means would allow to all the industrial movements that had for their object the building up of Florence. They have induced several large dealers in tobacco to come to Florence to erect their drying and stemming plants as a step towards broader development of this city as a tobacco market, and they are now proud to boast the possession here of a branch of the Gorman-Wright factories, which, by the way, has been largely added to this summer and its capacity more than doubled. This is now the largest stemmery in this part of the country. John Coleman & Co. are building a large leaf factory here, and the big plant of the American Tobacco Co. is now in course of erection. There are three large warehouses in this city that are well patronized by planters from all over the tobacco belt of South Carolina. The merchants of Florence are building up a large trade in tobacco supplies of all kinds. The opportunities for doing a jobbing trade are particularly good in Florence. The unrivaled railroad facilities of the city are greatly in favor of this class of business. There is a fair amount of jobbing done here in almost all lines of trade, and we hope to see this business developed in the near future.

There has recently been organized in Florence a Young Men's Business League, which has begun an aggressive campaign for the development of the resources of Florence. Through this organization an ice factory will be built here to replace the one destroyed by fire some time ago, a steam laundry to replace the one that met the same fate, good roads throughout the county and many other good works are about to be consummated. J. F. Stackley, one of the largest merchants of the city, is the president, and Hartwell M. Ayer, editor of the Daily Times, is the secretary. This organization is ready at all times to take in charge anything that pertains to the welfare of the city.

Florence has a live administration, which is keenly alive to the interests of the city and anxious to attract capital and industrial enterprises of all kinds to Florence.

Florence claims to offer peculiar advantages for the investment of capital. Her business men are anxious to make these advantages plain to anyone seeking a good field for the investment of either capital or energy. Among the enterprises, besides the tobacco factories above



spoken of, may be noted the great shops of the Atlantic Coast Line, which distribute about \$25,000 monthly to employees; the basket and carrier manufactory, which meets the large and growing demand of the truckers of this section; an electric-light and power plant, two factories where tobacco flues are made, besides a number of shops of greater or less magnitude for the making or repairing of many things, including a large cotton-oil mill and an iron foundry.

There are three good hotels in Florence, one of them quite an ornament to the city, and one more ornamental proposed in the near future. There is a good daily newspaper and two good weeklies in the city; all of them are well patronized by the progressive merchants. There is a good bank here that has just purchased a handsome building and will have it repaired and fitted in a suitable manner for the business that is done there. The health record of the city is particularly good; an efficient board of health has done fine service in this matter. This is a country of artesian wells, and there are a number of fine ones in the city. The city is just now without water works, but the council has under advisement a plan which will soon be submitted to the voters for their approbation. The plan contemplates the construction of a line of pipes from a bold stream of water near the city which, by the way, would afford from 1000 to 1500 horse-power for some mill plant.

There are several industrial enterprises in view here now for which capital is needed. One of these is a cotton factory, and the other is a shoe factory. Florence affords a particularly good field for any enterprise of the sort, and her people, though possessed of no great wealth, are always ready to contribute from their small means to their establishment.

Several of the large land-owners are anxious to develop the trucking industry that has already gained a firm foothold here, and to this end have offered to any practical truckman who will come here to raise truck a good farm of their best land free of rent for five years.

HARTWELL M. AYER.

#### North Carolina Granite.

[Special Cor. Manufacturers' Record.]  
Faith, N. C., July 1.

The outlook for granite work here now is better than it has been for many years. The people here quarry large granite capstones, dress them up and haul them two and one-half miles to the Southern Railway. Several carloads of these stones, with some smaller ones, are now being shipped to South Carolina. Large orders are now being filled for granite curbing for street purposes for several cities. The rush for granite is greater than ever known before in this section. If the granite people had shipping places and little more sidetracks there would be a great deal more work going on here than there is.

J. T. WYATT.

#### The Huntsville Convention.

Among the topics to be discussed at the industrial convention to be held in Huntsville in September next are the following: Why cotton factories should be built in the South, the iron industries of the South, the opportunities of the South for economic wool-growing, the timber interests of the South, the phosphate industry of the South, immigration to the Southland—how best to obtain it, the need of industrial education for the South, the railroads of the South and their relation to industrial development, the agricultural interests of the South and how best to advance them, the dairy interests of the South, the race problem and its bearing

ing on the industrial progress of the South, legislation of the South as affecting capital and corporations, the horticultural interests of the South, the industrial South and its relation to South American markets, poultry-raising in the South, stock-raising in the South, silk-culture in the South, the banking interests of the South, the press of the South and its relation to industrial development, diversifying the industries of the South.

#### ROAD-BUILDERS' INSTITUTE.

##### Practical Interest in Highways to Be Encouraged.

Two of the greatest factors in the good-roads problems in this country are money to cover the expenses of the work and trained road-builders who know how to expend this money to the best advantage for permanent results. Road-builders will not multiply unless there is money with which to pay them, but the existence in every county or township of supervisors who know how to expend every dollar of road money and every day of road labor judiciously will very greatly increase the willingness of the people to vote taxes for road-building.

With a view to aiding in bringing about this result by awakening an interest in this subject a Road-builders' Institute is to be held in Charlotte, the center of that excellent system of macadam roads in Mecklenburg county, for ten days or two weeks, beginning July 11 next. It will be conducted by Prof. J. A. Holmes, the State geologist for North Carolina. Gen. Roy Stone, director of the government office of road engineering, will be with the institute for several days, and will give it the benefit of his wide experience. Mr. D. P. Hutcheson, manager of the Charlotte township road work, and Mr. C. A. Spratt, engineer for the city and county road work, will take part in the discussions of good-roads problems and explain their system of road-building. Other practical road-builders and city engineers will also aid in the work. The county, township and city road authorities will co-operate with the institute in every way possible in making the instruction given of a practical nature.

Persons attending will be given instruction in how to locate, build and repair earth roads, gravel roads, macadam roads, town streets and sidewalks, the handling of road machinery and the management of convicts. Road supervisors from every part of the two Carolinas and all other persons who desire to learn something about the methods of modern road-building on a basis suited to the conditions in the Carolinas, and who may wish to see the methods followed in building splendid macadam roads of Mecklenburg county, have been invited to attend this institute.

The Little Rock Board of Trade has embodied in its eleventh annual report several pages of statistics bearing upon cotton, and also a number of facts of value to persons seeking to establish themselves in Little Rock. The president of the board is Mr. Morris Cohn, and George R. Brown is secretary.

George B. Loving of Fort Worth, Texas, is representative of an English syndicate which, it is claimed, is purchasing cattle ranches and cattle on a large scale in Texas. It is stated that it has secured options on herds which aggregate over 1,000,000 head.

The output of the Joplin (Mo.) district during the first six months of the year was 266,851,260 pounds of zinc and 23,855,240 pounds of lead, valued in all at \$6,579,737.

## COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

#### New Orleans to Mexico.

Mr. W. H. Bennett of Kansas City, Mo., is president of a company which has determined to place a line of steamships between New Orleans and the port of Coatzacoalcas in Mexico. These vessels will carry fruit and coffee to the United States. The Mexican Gulf Agricultural Co. of Kansas City, Mo., purchased some time ago a large area of land in the territory mentioned. Mr. Bennett in an interview says: "I can say positively that the products of our plantations will be shipped to New Orleans, it being the best port of entry and departure for our purposes. We have now 2500 acres under bananas, and will this season ship nearly one million pounds of coffee. Later we will ship pineapples in addition to bananas. There is always not less than eighteen feet of water at the bar of Coatzacoalcas, and beyond that all the way up to sixty feet, so that the steamers we shall charter or maybe purchase will be able to load right at the plantation bank."

#### Increased Its Service.

The North German Lloyd Steamship Co. announces that it has decided to maintain a service between Galveston and Bremen, Germany, for the year. Arrangements have been completed for the various sailings. The dates until November 1 are as follows: Elizabeth Rickmers, from Bremen, August 10; Maria Rickmers, from Bremen, August 24; Ellen Rickmers, from Bremen, September 21; Elizabeth Rickmers, from Bremen, October 12; Hanover, from Bremen, October 19. Sailings will be arranged at intervals of about two or three weeks apart during the entire twelve months.

The Hanover, which is not yet completed, will make her first voyage to Galveston. She is a steel twin-screw steamer carrying 8500 tons of cargo, and is being built especially for the Galveston trade. She has a saloon with accommodations for about seventy-five cabin passengers and for about 800 steerage passengers.

#### Exports to Brazil.

The business men of Baltimore who have relations with Brazil are endeavoring to obtain a more liberal treaty to increase the trade in flour. It is claimed that the shipments of flour from Baltimore to Brazil have greatly declined on account of discrimination in favor of other countries, especially the Argentine Republic. The imports from Brazil, such as coffee and other products, are very extensive, and it is felt that the Brazilian government should afford American exporters a better opportunity to increase their trade under the circumstances.

#### New Steamer for Weems Line.

The Weems Steamboat Co. of Baltimore has given a contract to the Neafie & Levy Shipbuilding Co. of Philadelphia for another vessel, which will be of steel. The new boat will be 200 feet in length, thirty-one feet beam, and will draw twelve feet of water. She will be a single-screw steamer, and it is estimated will cost about \$200,000, having accommodations for about 120 passengers.

#### Gulf & Interstate Terminals.

The syndicate which now controls the Gulf & Interstate Railroad is reported as having decided to expend about \$400,000

in terminal improvements at Bolivar Point, on Galveston bay. The terminals will include wharves and warehouses. As it has been reported that the Gulf & Interstate and the Kansas City, Pittsburg & Gulf roads would in future be practically under the same management and trains of the latter road run over the Gulf & Interstate to Galveston harbor, the announcement of these improvements is of considerable significance.

#### Grain Cargoes at Baltimore.

The number of vessels arriving from points on Chesapeake bay and its tributaries at Baltimore is very large at present. In addition to cargoes of lumber, fruit and vegetables, the grain elevators on the harbor are receiving large shipments of wheat. During two days recently fifty-nine vessels loaded with grain reached the harbor to discharge grain cargoes.

#### For Galveston Terminals.

Engineers of the Southern Pacific Railway Co. have arrived in Galveston to prepare plans and specifications for the terminals which are to be established on Galveston harbor. According to the statement of the chief engineer, Mr. G. W. Boschke, work upon the improvements will begin in about six weeks. They will include a double-track steel bridge across Galveston harbor, in addition to the wharves and warehouses.

#### Jottings at the Ports.

John S. Medairy of Baltimore and others have formed the Tangier & Monokin Steamboat Co. in that city to operate vessels on Chesapeake bay and its tributaries.

A contract has been let by the government engineers for the construction of levees in Louisiana which will be seven miles in extent. Local contractors have secured the work.

The Southern Pacific Railway Co. has chartered another vessel for service between New York and New Orleans in order to accommodate the increase in traffic. The vessel will run as one of the fleet of the Morgan Line.

The steamship Batavia, one of the new vessels in the Hamburg-American service, recently cleared from Baltimore with a little over 10,000 tons of cargo. This is one of the largest cargoes yet taken from the city by a vessel of this line.

The steamship Iram, which recently loaded cargo at Hampton Roads ports for Europe, is one of the few twin-screw vessels carrying freight from Southern cities. She is one of the finest and fastest freight steamships now plying across the Atlantic, and is in the fleet of the Johnston Line.

The Consolidation Coal Co. of Baltimore has been awarded the contract for the supply of coal for the North Atlantic squadron until the end of July. The squadron is now at anchor in the harbor at Newport, R. I. The total order will be in the neighborhood of 7000 tons. This is the first time that any naval squadron has been supplied exclusively with George's Creek coal.

Surveys are now being made by the United States engineers for the improvement of the Trinity river. It is urged that a navigable channel can be made in this water-course from Dallas, Texas, to the Gulf of Mexico, which would give the city named a water as well as rail route to the seacoast. An effort will be made to secure an appropriation from the government for this purpose.



## RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

## Future of the K. C., P. &amp; G.

According to the statement of Mr. McDougall Hawkes, the attorney for the foreign security-holders of the Kansas City, Pittsburg & Gulf Railroad, there is no truth in the report that the principal terminus on tidewater will be at Galveston, and that Port Arthur will be abandoned. In an interview Mr. Hawkes, who has recently been over the line, is quoted as follows:

"The road has undoubtedly a great future. The principal source of its freight at this time, I should judge, would be from coal and lumber, great quantities of which are along the line, and the rapid development will increase the importance of the road just as much as its carrying power will allow.

"I was at Port Arthur and went over the terminals and gained a great deal of information concerning the canal. At the time I was there the canal had a mean depth of eighteen feet, though at some points it was dredged to twenty-five feet. As a harbor it is one of the best in the world."

When asked concerning the reports from Galveston stating that the terminals of the Kansas City, Pittsburg & Gulf Railroad would be changed from Port Arthur to Bolivar Point, opposite Galveston, Mr. Hawkes stated that he did not know anything about the matter; in fact, had not heard that such a thing was contemplated.

In speaking of the reorganization of the road, he stated that at present the matter was not receiving a great deal of attention. The experts had been sent out to inspect the property, and they were engaged now in making up their reports, which, when completed, would give the committee data upon which to form a plan for the rehabilitation of the Pittsburg & Gulf.

"I went from Port Arthur to Galveston via the Gulf & Interstate; to New Orleans via the Southern Pacific; to Memphis via the Illinois Central, and returned to Kansas City via the Kansas City, Fort Scott & Memphis. There was no particular significance in the trip other than I wanted to acquaint myself as far as possible with the railroads and the country in the Southwest. I made, as far as I was able, an examination of the lines over which I passed and made comparisons for my own guidance.

"I am not a practical railroad man, but I am thoroughly convinced that the Kansas City, Pittsburg & Gulf will, in time, be a great property."

## New Orleans &amp; Western.

Mr. W. C. Dotterer, vice-president of the New Orleans & Western Railroad Co., who has recently been in New York in the interest of the reorganization of this company, is quoted in an interview as follows: "The early reorganization of the New Orleans & Western road is assured. I am glad to state that in the reorganization the names of prominent local capitalists and business men will figure. This is a matter of satisfaction to us, for it shows that the people of this city have come to appreciate the important part Chalmette is destined to play and is already playing in the commerce of the port. It may be stated that this reorganization will, in all probability, make some of the leading business men of New Orleans not only large stockholders, but officials as well.

"I was pleased while in the East to note

the interest the people have there in the new era into which New Orleans is emerging—the era of cleanliness, healthfulness and commercial greatness. The inquiry everywhere was concerning the improvements we have started here, and I am sure that there will be a big influx of capital to this city."

## New York to Tampa.

Following the announcement made in the last issue of the Manufacturers' Record that a contract had been let by the Seaboard Air Line for its branch from Cheraw, S. C., to a connection with the Florida Central & Peninsular near Columbia, comes the report from the latter city that surveyors have arranged a route for the tracks of the company through Columbia. The Seaboard has made application for a portion of one of the city parks on which to erect its depot. The feeling is very favorable towards making liberal concessions to the company, and it is understood that no difficulty will be encountered in securing adequate land for terminals in Columbia.

According to a statement credited to Vice-President St. John, the Seaboard will have the track laid and everything arranged for a new route from New York to Tampa, Fla., by January 1 next.

## A Large Bond Issue.

The increase in the capital of the St. Louis, Iron Mountain & Southern Railroad Co. to the extent of \$40,000,000 and the issue of \$40,000,000 in bonds, it is stated, is for the purpose of refunding the 5 per cent. securities, also certificates of what is known as the Iron Mountain Car Trust. A part of the issue will also be utilized for purchasing the second mortgage bonds of the Texas & Pacific Railway. It is understood to mean that the relations between the St. Louis, Iron Mountain & Southern and the Texas & Pacific will be much closer in the future, and that they will be operated practically as one line. Both are what are known as Gould properties, the St. Louis, Iron Mountain & Southern being a part of the Missouri Pacific system.

## Pennsylvania Railroad Improvements

The Pennsylvania Railroad Co. is carrying out a number of important improvements in Baltimore. It has recently completed an extensive warehouse to increase its facilities for handling fruit at Bolton station, and is replacing the President street depot, partly destroyed by a storm last winter, with a more elaborate station. Bids have also been received for a warehouse to be built at the foot of Bond street, which, it is understood, will cost \$135,000. It will be six stories high and composed of brick, with stone trimmings and iron framework. The building will be used largely for fruit trade.

## Georgia's Melon Shipments.

The Plant Railway & Steamship Co. has begun shipping melons on a large scale from Georgia, and for several days these shipments averaged 300 carloads daily. The prices received for the fruit average about \$40 per car, and it is calculated that this sum gives the melon growers a fair profit. The plan pursued is to purchase the fruit on the ground, avoiding the necessity of selling on commission in the North.

## Railroad Property in North Carolina.

The corporation commission of North Carolina has completed its assessment of the railroad property in this State. According to its figures, the total mileage is 3574, and the valuation \$42,259,000, an increase over last year of nearly \$10,000,000, or about 25 per cent. Of this in-

crease the Southern represents \$4,893,000, the Atlantic Coast Line \$4,233,000 and the Seaboard Air Line \$2,691,000.

## Railroad Notes.

Mr. L. E. Johnson, general superintendent of the Norfolk & Western Railroad, has been promoted to the position of vice-president to succeed J. M. Barr, who has resigned.

The Moscow, Camden & San Augustine Co. at its annual meeting at Camden, Texas, elected the following officers: W. T. Carter, president; C. H. Jones, vice-president; E. A. Carter, treasurer; Jack Thomas, secretary.

The officers of the Birmingham Southern Railroad, which has recently been sold, as announced in the Manufacturers' Record, to the Southern and Louisville & Nashville companies, have been selected as follows: Jones G. Moore, president, and Addison G. Smith, vice-president.

The Southern Railway Co. announces that the office of general superintendent of transportation has been abolished. The offices of general superintendent and superintendent of transportation have been re-established. The following appointments have been made: J. H. Barrett, general superintendent; J. A. Dodson, superintendent of transportation, and D. W. Lum, assistant superintendent of maintenance.

## Georgia Marble for a Statehouse.

Several weeks ago the Manufacturers' Record referred to the shipment of a large block of Georgia marble to Providence, R. I. This block was twenty-seven feet two inches long and about four feet four inches square. It contained over 500 cubic feet and weighed about fifty tons. The marble is intended for the State capitol at Providence, and was shipped from Marble Hill, Ga.

The American Correspondence School of Textiles, New Bedford, Mass., has already issued publications approximating 1000 pages of closely-printed instruction papers dealing with most of the departments of cotton-mill work, designing of cotton, woolen, worsted, silk and other textiles, and general textile information, and the courses of instruction are proving so popular that Director C. P. Brooks intends, with the assistance of his large staff of instructors, to publish another thousand pages before the last of the year. These instruction papers are supplied to the students of the school for use as textbooks without extra charge, and become valuable works of reference; in fact, being the most complete series of textbooks ever written on American machinery.

The Blue Book of American Shipping. Publisher, the Marine Review Publishing Co., Cleveland, Ohio.

This volume, just published, contains particulars about American steam and sail vessels, with the names and addresses of the owners, separated as to coasts, western rivers and great lakes, illustrations of ship and engine builders, naval architects, marine engineers, vessel masters and members of organizations in the naval and merchant marine, with facts about vessels of the United States Navy, statistics of the water commerce of the country, with special reference to the great lakes, and a list of steamship lines, including those operating to foreign ports, with details of service, principal officers and names and addresses of the managers. Among the full-page half-tone engravings are several illustrations of the works of the Newport News Shipbuilding & Dry-Dock Co.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

## GINNING OUT AIR.

A Suggestion of Mr. Edward Atkinson About Cotton Baling.

Editor Manufacturers' Record:

A very ingenious invention which has been made by Mr. Charles L. Norton of the Massachusetts Institute of Technology is now being applied under my general direction and supervision to an exact measurement of the injury done by ginning cotton of any kind upon the saw gin by weakening and in breaking and yet more in partly breaking the fibers. When the new crop comes into the market a larger number of examples of cotton from the same field which have been ginned on the saw gin and on the roller gin will be compared. The damage can then be accurately estimated. It seems to be not less than 15, probably over 25 per cent.

But that may not be the greatest evil of the saw gin. A most important fact has been developed affecting the baling of cotton. Cotton delivered by a good roller gin is free of entrapped air to any injurious extent. It may therefore be baled in ordinary presses to such density as warrants its being carried on railways at the customary charge for compressed cotton. A slight increase in the power of the ordinary press would probably give it as great a density as that of compressed cotton. It is the entrapped air in saw-ginned cotton which makes the great compress, with all its expense and cost, a necessary evil.

The ginneries, especially in Texas, are now trying to establish a well-made rectangular bale of uniform size. What I now suggest may have been long since experimented upon and possibly rejected. If the passing of fleecy cotton through a roller gin squeezes the air out of it so as to enable it to be compactly baled without excessive compression, why should not pressure rolls be placed in front of a saw gin so as to squeeze the air out of the saw-ginned cotton in the same manner? If that can be done simply and effectually, the present type of rectangular bale may secure a little longer existence. Is it not worth trying? Who can tell me why it will not work? Yours very truly,

EDWARD ATKINSON.

Boston, Mass.

## To Double Capacity.

The Excelsior Manufacturing Co. of Cuero, Texas, will increase its capital stock from \$60,000 to \$100,000 for the purpose of doubling its mill's capacity and resuming operations. This mill has been closed three years, and recently the owners held a meeting and decided on the action as noted above. Considerable new machinery will be installed; the present equipment is 1200 spindles and forty-three looms. C. L. Stadler is president, and E. Mugge, Jr., secretary-treasurer.

## Proposed Development at Emporia, Va.

The proposed development of water-power for textile-manufacturing purposes near Emporia, Va., is being projected by the Meherrin Power Co., which obtained its charter with this purpose in view. The company has all the necessary privileges for constructing dams, canals, etc.,



and for erecting cotton, woolen, knitting and other textile mills. About 2500 horsepower is said to be available, and the company expects to expend altogether about \$100,000 on its contemplated enterprises. The capital stock is authorized at not less than \$50,000 nor more than \$100,000. Judge W. Samuel Goodwyn of Emporia, Va., is president; N. H. Massey of Danville, Va., is vice-president; W. F. Deal of Emporia, Va., secretary, and H. Schwartz, treasurer.

#### The New Mill at Shelby, N. C.

The Shelby Cotton Mills of Shelby, N. C., reported last week as fully organized to build a \$100,000 factory, has given further particulars regarding its proposed plant. The main building will be a two-story structure 75x200 feet, in which will be placed 5000 spindles and 250 looms; both yarn and cloth will be the product. From 200 to 500 hands will be employed. Contracts for the buildings have been awarded and the machinery will be ordered soon.

#### Cotton Movement.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the ten months ended June 30 was 10,954,055 bales, a decrease of 69,281 bales from the movement last year; exports were 7,045,048 bales, a decrease of 263,619; takings by Northern spinners 2,205,996 bales, a decrease of 42,712; by Southern spinners 1,177,605 bales, an increase of 56,014 bales.

#### To Double at Cost of \$50,000.

A special stockholders' meeting will be held July 17 by the Chewalla Cotton Mills of Eufaula, Ala. The meeting will be for the purpose of acting upon a proposition to increase the bonded indebtedness by the sum of \$50,000. This amount will enable the company to double its mill, and it is presumed that the intention is to do so. The present equipment is 3500 spindles and eighty-four looms.

#### Textile Notes.

The Mayo Mills of Mayodan, N. C., will enlarge its plant.

The Palmetto Cotton Mills of Palmetto, Ga., has declared a dividend of 6 per cent.

The Chamber of Commerce of Macon, Ga., is promoting the organization of a cotton-mill company.

Messrs. W. O. Jones, L. M. Heard and others of Elberton, Ga., are interested in the organization of a cotton-factory company.

The Louisville (Ky.) Cotton Mill Co. has declared an extra dividend of 1 per cent., besides its regular semi-annual of 3 per cent.

It is proposed to form a company to build a knitting mill in Macon, Ga., and Mr. Minter Wimberly is preparing charter for same.

Messrs. M. Rick, J. L. McClenahan, B. F. Jenkins and others of Mansfield, La., are interested in a movement to form a cotton-mill company.

Messrs. Albert Timme, Theo. Kay and John Hacjbarth of Brazoria, Texas, have incorporated the Sealy Cotton Co., with capital stock of \$10,000, to manufacture cotton, etc.

The Eufaula (Ala.) Cotton Mills declared its usual semi-annual dividend of 3 per cent. at the annual meeting last week. New steam-power plant also was authorized, and possibly the mill will double.

The Warren Manufacturing Co. of

Warrenville, S. C., has filed notice of increase of its capital stock from \$200,000 to \$500,000. This company only recently completed its mill of 30,000 spindles and 800 looms.

Captain McNeill and J. M. Fulton of Bristol, Tenn.-Va., have purchased for \$10,000 the Sparger Cotton Mill and lands at Bristol. The purchasers intend to remodel and improve the plant and put it in operation.

Messrs. B. F. Strickland, E. W. Lane, R. Y. Lane and E. P. S. Denmark are organizing a company to build a cotton factory at Valdosta, Ga. The capital stock is to be \$150,000, half of which has been subscribed.

It is proposed to organize a \$200,000 cotton-mill company at Florence, S. C., and subscriptions to stock are being received rapidly. Those interested include W. R. Barringer, J. W. McCown, J. F. Stackley, W. H. Malloy and others.

The Chamber of Commerce of Huntsville, Ala., has on file a proposition from a New York company for the establishment of a \$50,000 knitting mill in Huntsville. The company agrees to locate a \$50,000 plant if Huntsville will invest \$20,000.

The proposed Columbus (Ga.) Manufacturing Co., to erect a cotton factory, noted several months ago, has chartered, with capital stock placed at \$225,000. Messrs. W. C. Bradley, Rhodes Browne, O. C. Bullock, E. N. Clemence and others are interested.

The new company at Sanford, N. C., has obtained its charter under the title of the Sanford Cotton Mill, capital stock being \$100,000, with privilege of increasing to \$500,000. A 10,000-spindle mill is to be built. Mr. W. H. Watkins of Ramseur, N. C., is president.

The Radford Woolen Mill Co. of Radford, Va., has been incorporated by Messrs. J. H. Chambley, J. G. Osborne, W. Ingles and L. L. Fransley of Radford, Va., and B. Langhorn of Pulaski, Va. The capital stock is \$10,000, and purpose to manufacture woolen goods.

The Olympia Cotton Mills, recently chartered to build a 104,000-spindle mill (as reported in this department) has purchased site for its proposed enterprise. The sum of \$31,200 was paid for 104 acres of land by Mr. W. B. Smith Whaley, who will be president of the company.

The Mary-Leila Cotton Mills of Greensboro, Ga., has awarded contract for erection of its main building; structure to be two stories high, 56x230 feet, and be equipped with 5000 spindles and 160 looms to manufacture three-yard white goods. Company will begin operations about February next.

The Avalon Cotton Mills of Mayodan, N. C., has been incorporated, with capital stock of \$150,000, for the manufacture of cotton and woolen goods, etc. The incorporators are Messrs. F. H. Fries of Salem, N. C.; R. J. Reynolds of Winston, N. C.; W. C. Ruffin of Mayodan and B. N. Duke of Durham, N. C.

A company has been formed, with capital stock of \$100,000, to buy, improve and remodel the old Quitman (Ga.) Cotton Mill that has been idle for some years. This will be practically a new plant. New boilers and engine and cotton machinery will be installed. Local capital subscribes \$50,000 of the stock, \$30,000 comes from outside capitalists, and the old plant is valued at \$20,000. Mr. J. W. Spain will manage the enterprise.

A recent dispatch from Fall River, Mass., stated that it was probable capitalists of that milling center intended to

build a mill in the South this year. The dispatch in question was as follows: "It seems probable that local capital will build a new cloth mill in the South. A successful treasurer here, Seth A. Borden of the Parker and Hargrave Mills, who has broached the matter to several of his stockholders, has received considerable encouragement and a practical result is expected soon."

The Spalding Cotton Mills of Griffin, Ga., which was chartered in May last, held a stockholders' meeting last week and elected officers. The president is W. J. Kincaid; vice-president, Douglas Boyd; secretary, J. W. Mangham, and treasurer, J. J. Mangham. The directors are Messrs. J. W. Mangham, Douglas Boyd, J. D. Boyd, W. J. Kincaid, Seaton Grantland, R. W. Lynch, J. B. Briggs and Jas. M. Brawner. Capital stock is \$100,000, and announcements giving particulars of the plant will be made shortly.

#### Paper from Bagasse.

A mill for manufacturing paper partly from the bagasse of sugar refineries is in operation in Sugarland, Texas, in connection with the refinery of E. H. Cunningham & Co. Prior to the erection of the paper mill it is stated that the refuse from the refinery was burned at an annual loss to the company. By the construction of the paper mill it has been turned into a source of profit.

Magazine readers of the summer months must be hard to please if they cannot find many articles of great interest in Self-Culture for July. The half-tone pictures are particularly well chosen and printed, and present views and portraits that really "illustrate" the articles. "American Landscape Painters" has portraits of four representative artists, and a sketch of "Jean Racine and His Age" shows the great dramatist in the resplendent but cumbersome wig of the time of the Grand Monarch. The descriptive articles present fine views of "The Island of Santa Catalina," "The Smithsonian Institution" and "Life on the Vega," while "How the Handwriting Expert Works" not only explains his methods, but in a very clear photographic reproduction of a "raised" draft shows the various steps taken by the forger in the first place, and the subsequent modes of detection adopted by the convicting expert. Thoughtful papers on "The People and Politics," by the Hon. Boyd Winchester; on "The Dominant Sea Power," by Leslie J. Perry, give food for reflection on prominent subjects of the day, and in view of the advanced age and precarious health of Leo XIII an account of "Pope-Makers and Pope-Making," by the Rev. Edmund Guilbert, describing the methods of creating cardinals and the work of the Conclave, is timely and of great interest. An amusing paper by F. W. Fitzpatrick, entitled "Fashion's Slaves," with pen and pencil drawings by the author, criticises freely the vagaries of Dame Fashion and her feminine devotees.

The McCain-King Mercantile Co. of Waxhaw, N. C., closed a contract on the 29th ult. with the Bushnell Company of Thompsonville, Tenn., to supply machinery for a cottonseed-oil mill. The building will be erected at once, and will be in operation at the commencement of the next season.

A dispatch from Cumberland, Md., states that the Potomac Steel Co., which recently leased the Cumberland Rolling Mill plant, is preparing to resume operations with it at an early date. The plant will be used for manufacturing rails, and later steel plates will be turned out.

## COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

#### The Market for Cottonseed Products.

New York, N. Y., July 5.

While the market for cotton oil is still without important change, an improvement in prices has taken place since our last. The market is also very firm on the recent advance, both in demand and prices. Transactions are becoming a little more frequent with regard to domestic trading, while a more urgent export enquiry is also a leading feature. The lard market shows no improvement, notwithstanding the reported scarcity of hogs, 5.05½ cents being quoted for this month's delivery, Chicago. Tallow is strong on the recent advance, and is quoted at 4¼ to 4½ cents, hogsheds, and 4½ cents, tierces. With regard to pure lard it is clear, owing to its low price, a very large volume of business is being transacted to the comparative exclusion of compound lard. On a single day last week 4,340,400 pounds of lard were shipped from Chicago, against 873,000 pounds a year ago. The cotton-oil market, while approaching the end of a monotonous spell, is still a waiting one to a certain extent. Exporters are ready to buy substantially, but are at the moment holding off in the hope of obtaining better prices. This latter is highly improbable, however, seeing that stocks are concentrated in few hands, holders having sufficient confidence in their faith in the future as to reject propositions even based on current quotations. With anything approaching the demand which is expected it is a matter of doubt if there will be sufficient stocks left to tide over until new-crop oil arrives. Exporters are raising their bids in some cases. Dock lots are well cleaned up, and arrivals are on a diminishing scale. Winter oil is in good demand, while prime and off are selling in a moderate way locally for soap-making purposes. English oil, refined, at 15s. 6d. Hull is still under Continental prices, with very little demand for American oil, Egyptian being plentiful. English oil has advanced 3d. since our last, however, a further advance being expected. "Even Marseilles," says an authority, "reports good supplies of off compared with a year ago and liberal arrivals of ground nut and gingelly oils from India, while copra, palm, kernel and olive foots, as well as the higher grade of sesame soap stocks, relieve that market from dependence upon American except at prices relatively as cheap as those substitutes." The following are closing prices: Crude, 20 to 21 cents; crude, loose f. o. b. mills, 17 to 18 cents; off crude, loose f. o. b. mills, 14 to 16½ cents; summer yellow, prime, 26 to 26¼ cents; summer bleaching, 26½ cents; summer, off grades, 24 to 25½ cents; yellow, butter grades, 29 to 30 cents; white, 29½ to 30½ cents; winter yellow, 30 to 31 cents; salad oil, 30 to 31 cents. There is nothing new in cake or meal. Strictly prime meal is quoted at this market at \$21 to \$21.50 per ton, and ordinary \$19.

At a meeting held in Monroe, N. C., last week it was decided to erect a cottonseed-oil mill, most of the stock having been subscribed. The mill will have a capacity of forty tons per day. A permanent organization will be effected at next meeting, and the corporation will be known as the Monroe Oil & Fertilizer Co. Committees to look after the site, building and machinery were appointed. The mill will be in operation next fall.



**LUMBER.**

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

**LUMBER MARKET REVIEWS.****Baltimore.**

Office Manufacturers' Record,  
Baltimore, Md., July 6.

The occurrence of the national holiday and the closing of the principal exchanges from Saturday until Wednesday has considerably lessened the volume of business in lumber circles. The market, however, continues to show considerable business, while values hold steady under the demand. Receipts of North Carolina pine have been fair during the week, and the movement in nearly all grades of this now very popular wood has been well supported. The local demand, however, is not showing remarkable activity, and yardmen and bxmakers are not buying so freely. The shipments of the best grades of North Carolina continue, and the demand from foreign sources shows an improvement. In white pine the demand is fair, and prices are generally firm, with a good demand for round lots. There is a good inquiry for hardwoods, both by local buyers and out-of-town dealers, but stocks at all milling sections are generally light, restricting trade in a great degree. The foreign demand for hardwoods continues, and latest advices report American walnut, poplar and ash as selling readily if quality is desirable, while prices are very steady. Local timber exporters in Baltimore and Norfolk report the outlook for future business as very promising.

**Mobile.**

[From our own Correspondent.]  
Mobile, Ala., July 3.

The week under review has been extremely brisk in nearly all lines of the lumber and timber market, and the demand is decidedly active, with values firm at list figures. In lumber over 2,000,000 feet left the port during the week, over 500,000 feet going to Cuba. The demand for lumber is general, and up to date 63,000,729 feet have left this port since September 1, 1898, against 46,378,726 feet in 1897-98. There are no surplus stocks reported at mills, and certain grades are scarce. Orders are plenty at all milling sections, and values are generally firm, with an advancing tendency. The timber trade continues fairly active, with a good inquiry from the usual sources. Shippers predict a good trade during the remainder of this year, and advices from the United Kingdom and Continent are very favorable for a good trade. Sawn timber at this port is quoted at 12½ to 13 cents per cubic foot, 40-foot basis. Cypress is in good demand at 4 to 9 cents per cubic foot. There is a good inquiry for pine saw logs at \$5 to \$7 per 1000 feet. There is a good demand for hewn timber at 13 to 13½ cents per cubic foot, average B1 good. Of hewn timber 40,000 cubic feet left the port last week for Greenock, and of sawn timber 118,640 cubic feet. Timber and lumber freights continue to rule steady, with rates unchanged. The British bark Arizona, 1085 tons, was chartered last week to load lumber at this port for Buenos Ayres at \$13.50; bark Bonny Doon, 546 tons, from New Orleans to New York with dry cypress at \$6 and loaded, and Norwegian bark Adolph, 867 tons, from Pensacola to Buenos Ayres with lumber at \$13.75, October-November. A meeting of the Gulf Coast Lumbermen is to be held here on the 5th inst. to formulate a plan of organization on the following outlines: To gather information in regard to the demand and

prices of lumber and establish a uniform price-list. The association to consist of manufacturers only, with a board of directors and a chairman and treasurer. The Gulf Coast Lumber Manufacturers' classification is to be used for inspection, and a committee is to be appointed to furnish information to the members once a month. It is expected that there will be a good attendance, and the organization, if completed, will be of immense benefit to the trade generally.

**New Orleans.**

[From our own Correspondent.]

New Orleans, La., July 3.

The month just closed has developed in a remarkable degree a decided increase in the volume of business at this port. The city proper is forging ahead, and in almost every avenue of trade there is a tendency towards increased enterprise, while in everything that contributes to the upbuilding of a great commercial and industrial port the movement is most pronounced. The situation in lumber and other wood products perhaps never was surrounded by so many interesting features, and in the development of yellow pine, cypress and hardwoods New Orleans capital has been lavishly ventured with the most successful results. The capitalists of this city, with their numerous saw mills at distant points in this State and Mississippi, Alabama, Florida and Texas, are certainly reaping their rich harvest in the present decided and urgent demand for material. Prices at the moment are firm and hardening all along the line, and in the general demand throughout the whole country they have scored a corresponding advance. No organization of manufacturers has ever attempted to force prices to the point at which they stand today. In this section at many points mills have still on file orders received three months ago, and stocks are not accumulating, so that under a continuance of the active demand prevailing the business of the present year is likely to be of immense volume. All along the lines of railroad entering this city saw mills, spoke and stave factories and other woodworking concerns are springing up at different points. On the Illinois Central Railroad the hardwood lands of West Tennessee and Western Mississippi are being developed, and along over the Mississippi line into Louisiana the yellow-pine barrens and cypress forests are yielding a wealth of timber and lumber. This seems to be a most inviting field for the investor in timber lands and general enterprise, and hardly a day passes by without having to chronicle some particular deal in properties of various kinds. Among the latest, and one which at almost any moment may be consummated, is the consolidation of the New Orleans saw and planing mills and sash, door and blind factories. The Manhattan Trust Co. of New York is said to be the promoter of the scheme, and its representatives have been in the city during the past week completing final arrangements. The amount involved in the deal is said to be about \$2,500,000 or \$3,000,000. After the transaction is closed the purchasers will erect factories for the manufacture of hardwood utensils and other articles in wood. By combining the local saw and planing mills and sash factories with the additional capital, New Orleans becomes a strong competitor in developing a very important industry. Among other improvements in and around the city and suburbs real estate seems to have shown a remarkable volume of business during the past month. New investors are coming into the market every day, and of late the center of activity seems to be on Carondelet and Canal streets. In buildings,

both in private residences, warehouses and office buildings, a number of the most modern and capacious styles are contemplated during this year, and it is said that mechanics and laborers will be fully employed at good wages during the fall and winter.

**St. Louis.**

[From our own Correspondent.]

St. Louis, Mo., July 3.

In the local lumber market there is a fair trade in progress, and the volume of business for the month of June was in some respects very satisfactory. It must be admitted that in certain lines there has been a slight falling off, but as a rule the business is far ahead of the same period last year. The city-yard trade is not as heavy as usual, but country yards are stocking up more plentifully. There is a good local demand from builders and contractors, as the building trade is now very fair for this period of the season. There has been a slight advance in cypress, due in part to a better demand and more orders at the mills. Stocks of cypress here are in fair shape, and with a steady demand and liberal receipts the tone of the general market is expected to continue firm for sometime to come. There is a satisfactory volume of business in yellow pine, but with the exception of a fair demand for timbers, business is not rushing. Yellow-pine lumber is not selling as rapidly as expected several months ago, and the city-yard trade is reported quiet. There is, however, a good demand for certain grades, and buyers are generally paying list prices. There is a scarcity of rough finish, while the demand is sometimes urgent from both factories and car shops. The market conditions for hardwoods are generally encouraging, and likely to continue so during the year. Receipts of ash are generally liberal, and the demand is strong, with the offerings quickly taken. Quartered white oak and thick plain are in good request, and of the latter three-inch stock sells very readily. Poplar squares are selling, and in all lines of hardwoods prices are very steady.

**Lumber Notes.**

M. C. Brice of Abingdon, Va., has purchased the timber on 5955 acres of land in Russell and Dickenson counties from the Tazewell Coal & Iron Co. for \$35,000 and will at once develop the property.

The creosoting plant purchased by the Augusta Railway will be removed to Augusta, Ga., and operated in connection with the gas works. All timbers that are used by the railroad company under ground will be creosoted.

A charter was granted last week to the Empire Lumber & Mining Co. of Johnson county, Tennessee. The capital stock is \$150,000, and the incorporators are Jas. E. Gillingham, George Warner, George F. Craig, A. J. Dull and David Baird.

A charter was granted last week to the George W. Miles Timber & Lumber Co. of Millersburg, Ark. The capital stock is placed at \$100,000. The officers of the company are George W. Miles, president; W. G. Miles, vice-president, and George S. Miles, secretary-treasurer.

The Stewart Tie & Lumber Co. was incorporated last week at Americus, Ga., with a capital stock of \$10,000. The incorporators are R. M. and L. C. Stewart, Arthur Rylander and R. M. Stewart, Jr. The company will manufacture crossties, lumber and other wood products.

Messrs. G. R. Thornton and William Kerr of Birmingham, Ala., are about to incorporate a company to deal in all kinds of lumber and other wood products. A yard has been established in the above city and a stock of over a million

feet of all kinds of lumber will be on sale.

Mr. P. L. Bowling is building a railroad running from the Bigbee river near St. Stephens, Ala., to near the center of the county. Hauling timber to the river and floating it to Mobile will be the principal business of the company. The road will run within half a mile of St. Stephens.

The Western North Carolina Bark & Lumber Co. of Asheville was incorporated last week. Its capital stock is \$2000 to \$20,000. The incorporators are Thomas Hackett, J. T. Croyle and Jacob Parker. The company will manufacture wood products, buy and sell timber lands and build tramways.

The milling plant of Hickman & Wiggs, near Gilbertsboro, Ala., was destroyed by fire on the 23d ult. The property destroyed consisted of a large band mill and a quantity of lumber. The company has thousands of feet of lumber to cut, and will rebuild the plant as rapidly as possible. A partial insurance was carried by the company.

It is stated that the "College Tract" of timber land in Glynn county, Georgia, was purchased on the 27th ult. by the Hilton & Dodge Lumber Co. of Brunswick, Ga. The tract is said to contain 7700 acres, and the purchase price is stated to have been about \$30,000. The land contains some magnificent timber, especially cypress, and is considered very valuable.

The differences between the Pinopolis Saw Mill Co., which is building a railway line from Moultrie to Tifton, Ga., and the Tifton, Thomasville & Gulf Railway Co. have been settled. The Tifton, Thomasville & Gulf is given the right of way through the lands of the Pinopolis Saw Mill Co. and the right to cross the line to reach its timber, only maintaining one crossing at a time.

Representatives of the Standard Oil Co. at Dickson, Tenn., last week selected two sites, either of which, if approved by the management, will insure the erection of a large stave and heading factory and cooperage plant. The plant will consume the product of five other mills than the one to be operated at Dickson. Liberal inducements have been offered for the establishment of the enterprise.

At the recent meeting of the Southern Cypress Shingle Association of Louisiana, Arkansas and Texas, held in New Orleans, the stock of shingles reported on hand amounted to 50,000,000, against 160,000,000 last season. This shows quite an increase in demand for the year, while the present active demand and decreased supply promises good prices and satisfactory order lists for the present season.

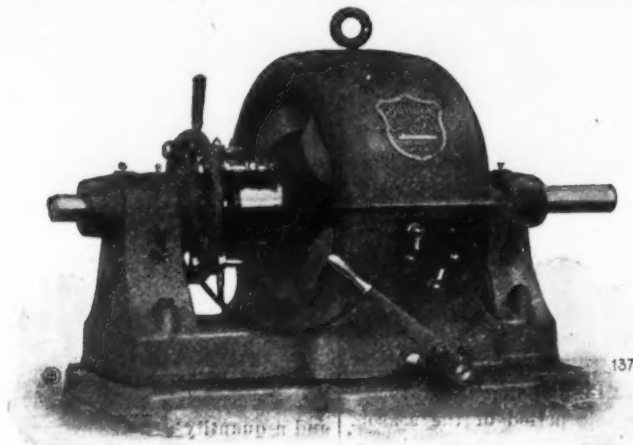
The Bridgers & McKeithen Lumber Co., of which Mr. Preston L. Bridgers of Wilmington, N. C., is president, and Mr. D. T. McKeithen of Burke, S. C., is general manager, has completed the purchase from the Stearns Manufacturing Co. of one of its latest improved band saw mills. The new mill will be located near Mont Claire, Darlington, county, South Carolina, and will have a capacity of 40,000 feet per day, with a full equipment of dry-kilns and planing mills. After the completion of the band mill the company will at once erect an additional mill for the manufacture of hardwoods only, with a capacity of 25,000 feet per day. The plant will be located in the heart of a large supply of unbled yellow-pine timber which the company has purchased on the Pee Dee river. The company also owns extensive interests in hardwood timber lands.



## MECHANICAL.

### Bullock Electric Manufacturing Co.

A good example of a complete and modern plant is that of the Bullock Electric Manufacturing Co. of Chicago.



BULLOCK BELTED MOTOR.

The plant embodies the latest and best ideas as to economy of production, and every facility for producing electrical machinery of the highest order; the welfare of the artisan has also been fully considered, both as to health, comfort and pleasure.

This plant was completed last summer and occupied about the first of 1899. The buildings are located at East Norwood, O., one of the suburbs of Cincinnati. The B. & O. S. W. R. R. crosses the Pennsylvania lines at this point, and both roads have tracks entering the works, thus offering excellent shipping facilities.

Perhaps the first impression received by the visitor to the works is the simple yet beautiful architecture of the several buildings; second, the great amount of light and general cleanliness within. The buildings are constructed of light buff pressed brick, with appropriate trimmings of stone, and separated from each other by grass plots, flowers and shrubs.

The plant comprises the administration building, machine shops, foundry and power-house. In the first mentioned are the general offices, drafting and pattern rooms, lunch-room for officers and heads of departments, with a completely equipped kitchen and pantry, general lavatory and locker-rooms for workmen.

In the main hall of the administration building is a telegraph office and a telephone exchange, the latter extending to the various departments of the works.

The offices are provided with all modern conveniences, and the dressing-room for mechanics and shop employees is provided with the usual toilet arrangements, also a complete system of lockers and baths. Each man has a locker under key, and in the lavatory are set-bowl, shower and needle baths.

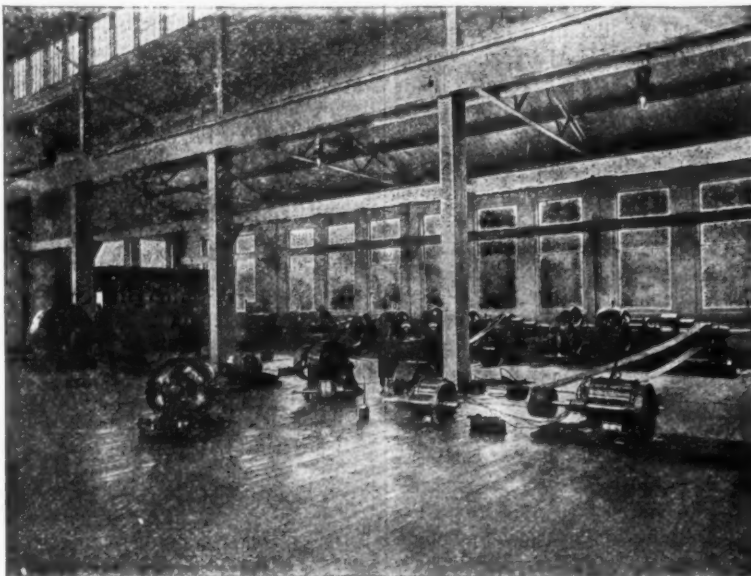
The drafting and pattern rooms are on the second floor of the administration building, and are very light and commodious. The kitchen and lunchroom are also on this floor.

The machine shops illustrate the great economic progress made in manufacturing methods. There are no long lines of shafting and countershafting; no unsightly and light-forbidding belts; each machine is driven by an independent Bullock electric motor, which absorbs power from the transmission lines only when it is required, and, by reason of all this, one is impressed with the improved atmosphere and absence of the noise due to constantly running belts and shafts.

Among the machines equipped may be mentioned cranes, power presses, lathes, planers, drills, milling machines, profilers, emery grinders, hydraulic presses, boring

mills, etc. The motors used for driving these various tools are designed and adapted for the tools mentioned, and are built into the headstock of lathes, while in other tools they take the place of the driving pulley and require no more room. The motors are of the Bullock slow-speed

type, with the variable speed control governed by the Bullock multiple voltage system. The tools may be operated in six varying speeds in either direction,



TESTING DEPARTMENT.

without the use of back gearing or any resistance whatsoever in the electrical circuits. The economies effected by application of motors to machine tools, although in first cost slightly more expensive than the use of line shafts, belting and countershafts, soon justifies the additional expenditure. The output of the tool is largely increased on account of the multiplicity of speed obtainable, and the facilities for changing these speeds while the tool is in operation. Space is economized, as the tool may be located without reference to line shafting.

The powerhouse is provided with vertical water-tube boilers, equipped with automatic stokers. A cross-compound engine direct connected to two of the Bullock engine-type generators supply current not only for the lighting system, but for the Bullock multiple voltage power transmission system used throughout. An elaborate switchboard has been erected with the necessary electrical instruments and switches, including Recording Wattmeters, registering the amount of power being used on the various circuits. A section of this building, occupying the whole southerly end, is set apart and fitted out for the employees' lunchroom. Apparatus for heating the general machine shops is located in the basement of the powerhouse, and hot air is conveyed hence underground to its destination.

Illustrations of a Bullock belted motor

and of the testing and machine departments are presented.

The Bullock Electric Manufacturing Co. has for its president George Bullock; J. S. Neave is vice-president, and James Wilson Bullock, secretary.

Literature dealing with the company's product can be obtained on application.

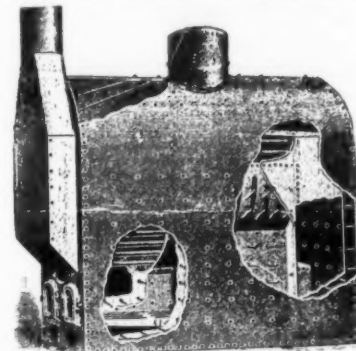
### New Boiler for Marine Service.

Paragon is the name given to a new type of boiler for land and marine service recently put on the market by its inventor, Capt. M. DePuy, 19 South street, New York city. Thus far this type of boiler has been used only on canal boats on the Erie canal, but they are adapted to all kinds of service, both on land and water. Attention was first drawn to this design of boiler when the steam canal boat Paragon, named after its boiler, towed ten canal boats loaded with grain from Albany to New York city. The combined weight of the ten boats and their cargoes, together with that of the Paragon, was 3230 tons, which is said to be the largest tow ever brought down river by steam canal boat.

One of the most difficult problems met with in the design of canal boats is to obtain a large tonnage with a small draft.

one-half feet long, seventeen feet ten inches beam and ten feet three inches in depth; it is rated to carry 180 tons on six-foot draft. Its engine is of the condensing variety, with cylinders fourteen inches in diameter and a piston stroke of sixteen inches. Its propeller wheel is six feet in diameter.

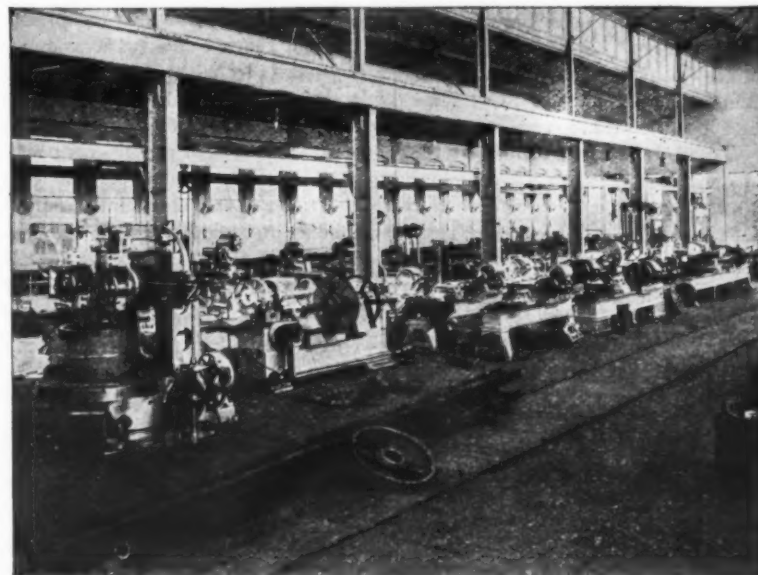
The boiler, which is the novel feature of this boat, was built from designs furnished by Captain DePuy. It is eight feet long, six and one-half feet wide and thirteen feet four inches high, including ash pan and dome. It has 234 tubes two and one-half inches in diameter and six feet long. Its grate area is twenty-six square feet and its heating surface is 1135 square feet. It has double furnaces entirely surrounded by water legs, the longitudinal ones extending the entire length of the boiler and connecting with the front and back ones. There is a series of slot openings in the shell over the side



THE PARAGON BOILER.

and center legs which permits the water to have a free circulation. As the bottom of the cylindrical shell forms the crown sheet of the fire-box, no bracing is required. For cleaning purposes there are provided six hand holes in front and three in the rear, besides a manhole in the steam dome. Cast iron shaking grates are used, being adapted to burn either egg, pea or soft coal. The boiler is allowed to carry 150 pounds of steam pressure by government tests.

The success of the trial trip of the Paragon was attributed entirely to the boiler. The large amount of heating surface it contains enables it to produce steam rapidly and economically. It is said that it burns by natural draft either hard or soft coal, steams freely and consumes only one and one-half tons per twenty-four hours. One other Erie canal boat is using this type of boiler, and her owner



MACHINE DEPARTMENT.

chinery plays a very important part in their construction.

The Paragon was built for the purpose of testing the "Paragon" boilers. It is modeled after boats in general use on the Erie canal. It is ninety-seven and

is very well pleased with its performance. He says that by its use he is enabled to handle a fleet of boats of much larger tonnage than was formerly the practice. Address Captain DePuy for further particulars.



## New Dump Cars.

Fig. 1, showing the car dumped, represents a rotary, or turntable, dump car, one and one-half yards capacity, three-foot gauge, horse or push car, made with but few castings; 16-inch chilled wheels tight on two-inch axles, with inside bearings fitted with brasses and sliding waste caps; draw-heads are made of cast iron, and by means of a stiff coupling the cars can be run in trains, and have been used with locomotives.

The turntable rings are of wrought iron. The method of forming the open end of the box is such as to give great

has its top hinged, reducing its weight materially. Suitable latches are provided for securing this door.

The end gate has spring latches, with hinges placed so that large stones, etc., will pass, the car being dumped by means of a tippie. This is one of the best cars for the purpose on the market and makes a very low car. Messrs. Thomas Carlin's Sons of Allegheny, Pa., build these cars.

## Extra-Heavy Double-Spindle Shaper.

This new heavy double-spindle shaper is especially designed for the heaviest

face. They are made of the very best quality of spindle steel and run in boxes so constructed as to continually flow sufficient oil. Recent improvements made in the construction of these bearings are

neath the table and out of the operator's way. The raising wheels for raising and lowering the spindles are very convenient to the operator, and the spirally-cut gears work in a perfect manner, preventing the

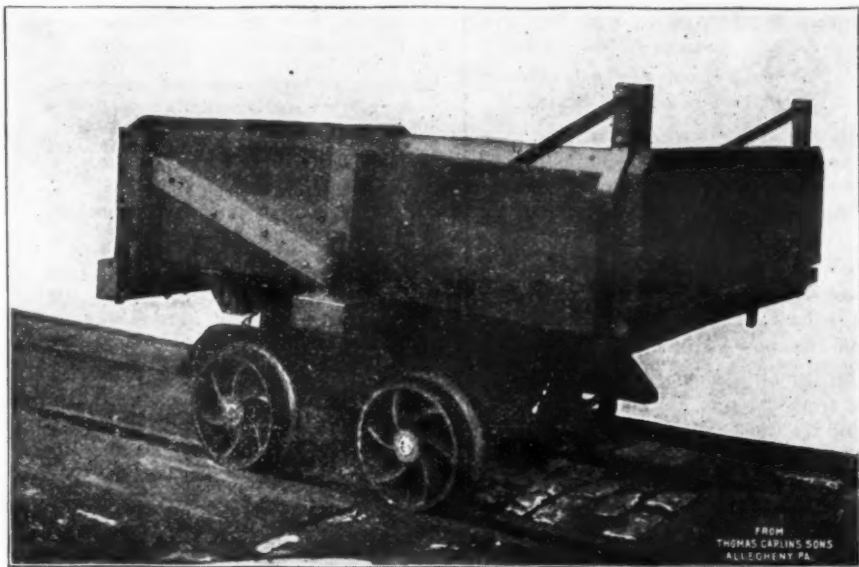


FIG. 1.

stiffness and durability. The cars are very low and keep the track well. They are as light in weight as is consistent with the work they are intended for.

They have been used on steam-shovel work, although intended for hand and rock work. They are thoroughly well made. Other capacities and gauge of this type of car can be furnished.

Fig. 3 shows a contractor's car for use in driving tunnel headings, etc.; it is of 36-inch gauge, with 16-inch chilled web wheels tight on two-and-three-quarter-inch steel axles, with box bearings, having

work, such as is found in car shops, wagon and agricultural-implement factories, etc. The spindles are thirty inches apart from center to center.

This No. 7 shaper is extremely heavy and solid and of such design as to stand solidly on the floor or foundation without the slightest vibration, capable of any work that it may possibly be called upon to do. Its advantages and conveniences and solidity and first-class workmanship make it of superior value. The column is of improved design, with the broad, heavy base flanges, these flanges extending

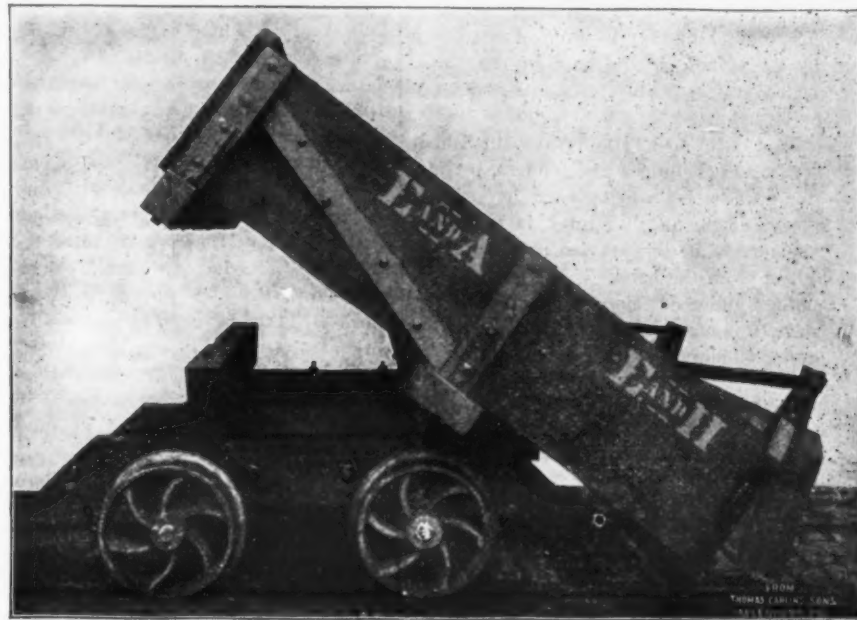


FIG. 2.

such that when doing the very heaviest work not the slightest annoyance or trouble is ever caused by heating of boxes. Both spindles are mounted in very sub-

spindles working down when running. Flat bits, which run between slotted steel collars and which are very easily kept in order and very readily changed,

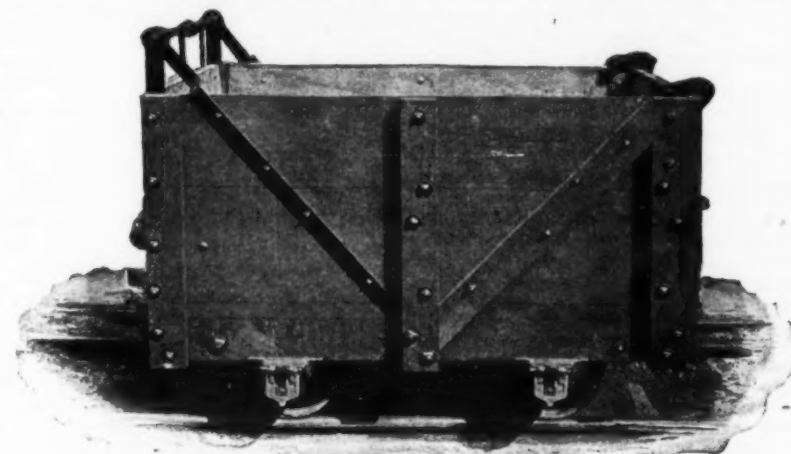
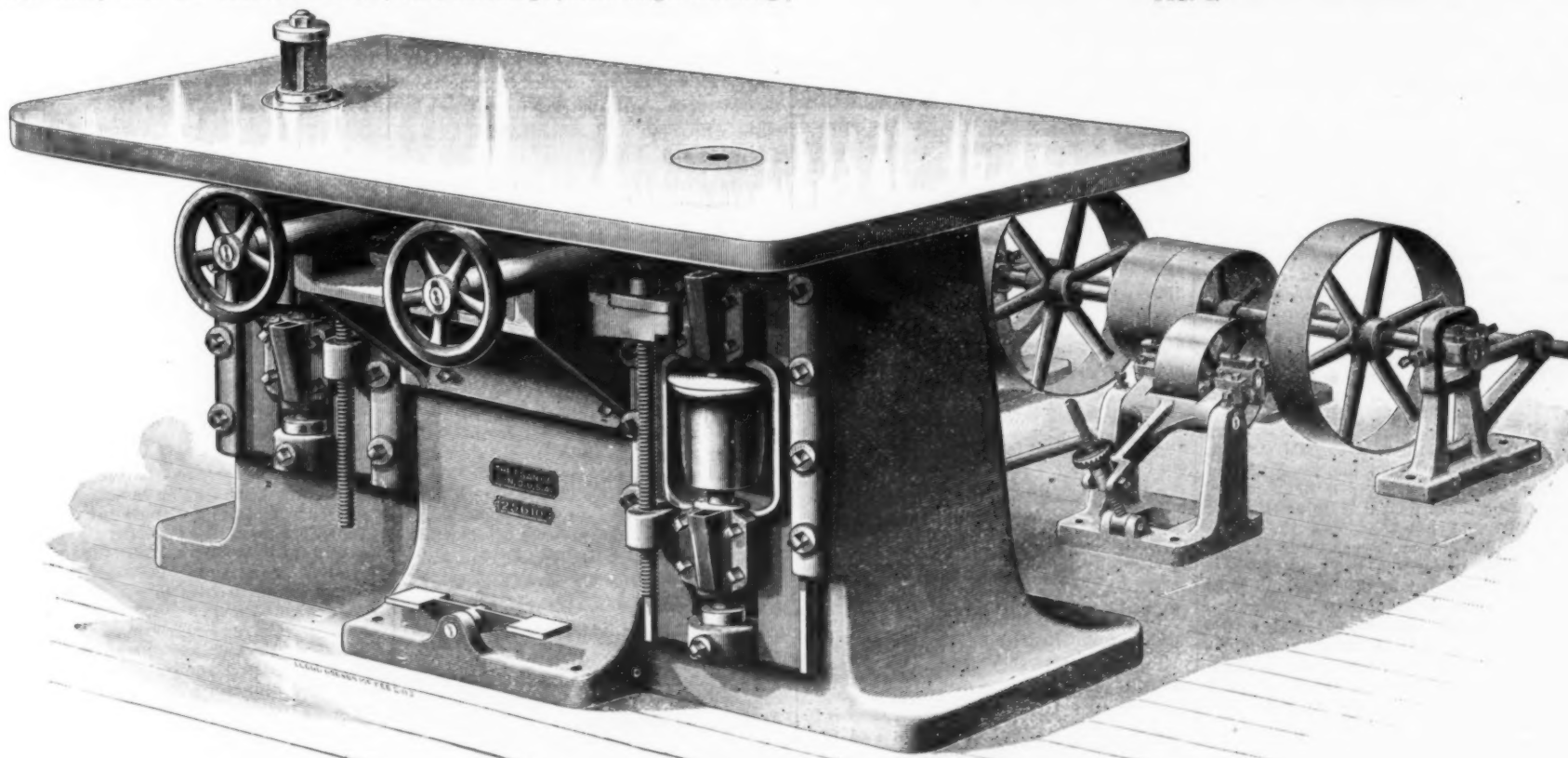


FIG. 3.



EXTRA-HEAVY DOUBLE-SPINDLE SHAPER.

hinged spring lids, waste recesses and brasses. The capacity is thirty cubic feet. The woodwork is of oak, well ironed and bolted. The back, or usually solid end,

backward so as to be entirely out of the operator's way.

The spindles are very large in diameter, far apart and with extra large table sur-

stantial yokes fitted into the column with heavy gibs, adjustable for taking up wear. Each spindle can be lowered below the table by the hand-wheels in front, be-

or the solid bits made right and left hand, may be used, or slotted steel heads will be furnished, if preferred.

The table is of iron, 48x68 inches, giving



ample surface, planed perfectly true and fitted with reversible concentric rings let into the table around each spindle, the reverse side of the rings having flanges, which, when used with the flanges above the table, act as convenient guides or guards.

The machine may be stopped or started by the treadle in the base at the front, which shifts the belt on tight and loose pulleys.

Improved floor stands are furnished, acting as belt guides and binders, permitting endless belts to be used for driving the spindles, as all stretch is taken up and much better service and wear obtained from the belts.

The builder of this new machine is the Egan Company, 228 to 248 West Front street, Cincinnati, Ohio.

### TRADE NOTES.

**Phosphate Plant To Be Sold.**—Phosphate mining has been for years one of the principal industries of South Carolina. An opportunity to acquire an established plant in that industry is to be offered next month by Mr. D. B. Gilliland of 62 Broad street, Charleston, S. C. The plant in reference contains complete equipment, including wharves, sheds, switches, etc. (See advertisement.)

**Car-Truck Works.**—The Dorner Truck & Manufacturing Co. of Cleveland, Ohio, expects to remove its factory to Logansport, Ind. A cash bonus, several acres of land and two large buildings are given as a bonus to effect this removal. The Dorner Company produces a complete line of electric-motor and trail-car trucks, and its facilities will be much improved and enlarged by its removal to Logansport.

**Factory Site Offered.**—One of the leading industrial States of the South is South Carolina, and many sites of exceptional advantage continue to be available for manufacturing purposes. One of these sites is offered for sale by J. B. Henneman, executor, or Alex. Long, agent, of Spartanburg, S. C. The site in question includes nearly three acres of land fronting on railway line. A complete soap factory is in place on one corner of the property. (See advertisement.)

**Reward of Merit.**—The reward of merit is evidenced in the instance of the demand for the product of a company that has been running night and day for ten months past and has even refused some attractive contracts because of the crowded condition of its establishment. At present four separate concerns are assisting this company to supply its machinery, its present product being in volume three times greater than it was in 1897. The Harrisburg (Pa.) Foundry and Machine Works is the enterprise referred to.

**Acetylene Searchlights for Uncle Sam.**—Messrs. J. B. Colt & Co., New York, whose "Criterion" acetylene-gas generators are used and endorsed by the United States government, have recently received some substantial orders from Uncle Sam for acetylene searchlights for the Signal Service. This apparatus was first tested by government experts during the late Cuban war, and signalling was successfully done at a distance of forty-five miles at night, far surpassing anything heretofore used in general efficiency.

**C. H. Reeves Goes to Merchant & Co.**—The Chicago & Aurora Smelting & Refining Co. (with works at Chicago and Aurora, Ill., and Leadville, Col.), has been merged into the American Smelting & Refining Co., which owns the principal large smelters of the country, having abandoned the manufacture of Babbitt metal excepting the filling of a few orders on hand, although it had made a specialty of the manufacture of this material for engines, rolling-mill works, etc., in the past two years. Mr. C. H. Reeves, Jr., who was in charge of this department, has therefore resigned his former position and become identified with Merchant & Co., Inc., of Philadelphia, New York and Chicago. Merchant & Co., Inc., have been operating large smelting works for a long period of years in Philadelphia, and have always been very active in the manufacture of Babbitt metals. They are now in position to supply the former customers of the Chicago & Aurora Smelting & Refining Co. identically with all the "Aurora" grades of Babbitt metal they have been accustomed to use.

## PHOSPHATES.

### Phosphate Markets.

Office Manufacturers' Record,  
Baltimore, Md., July 6.

The business of the week under review has been interrupted by the festivities associated with the national holiday, and the volume of trade is not as large as usual. In phosphate circles at points of production there is more activity, and the local market, although steady, shows no urgent demand from fertilizer manufacturers and others. The movement in South Carolina is more satisfactory, with shipments showing up much better to both domestic and foreign ports. In Florida there is considerable activity, both at the mines in the hard-rock and pebble region and at the ports of shipment. The demand from Europe is good, and both in hard rock and pebble the output of the present year is well sold up. Prices continue to show considerable firmness, and holders make no concessions. Fernandina shipped last month 20,575 tons to Continental ports, the total shipments from that port for six months being 134,168 tons. Eleven steamers are chartered to load at Fernandina during July. The advices from the Tennessee phosphate belt are highly encouraging, and at Mt. Pleasant the output of rock is becoming greater every week. The foreign shipments of Tennessee rock from Pensacola for the month of June were valued at \$94,340. The remarkable increase in exports of rock from Pensacola will be amply provided for in the wharf improvements now being made at that port by the Louisville & Nashville Railroad. When these improvements are completed the Louisville & Nashville road will have dock room for eighteen steamers at one time. During the past week the charters reported were as follows: British steamer Sportsman, 1221 tons, from Charlotte Harbor to Elbe with phosphate rock at 18¢, July-August, and a British steamer, 1000 tons, from Pomaron to Charleston, Savannah, Port Royal or Newport News with brimstone at 10/3, August-September.

### Fertilizer Ingredients.

The market for ammoniates is steady, with no material change during the past week. Messrs. Thomas H. White & Co., in their circular for the month of June, say: "Ammoniates have been in fairly good request the month past, but buyers refused to operate without concessions in price. Their demands were rewarded with a gradually-declining market, assisted by free offerings of speculative holdings of high-grade tankage, the last sales of which were made at \$1.80 and 10 delivered Baltimore. The foreign inquiry for blood seems withdrawn entirely, and even resales at a decided loss are noted of 500 tons blood, which was bought early in the month ostensibly for export. Producers generally have been above the market. Eastern manufacturers claim full supplies for fall trade, while the South hesitates to buy much in face of a very weak and declining market for cotton. The fish catch is reported good on Chesapeake bay, but poor so far in Northern waters, where the bulk of the catch is taken."

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$3 12 @ 3 15
Nitrate of soda	1 70 @ 1 72½
Blood	1 98½ @ 2 02½
Hoof Meal	1 60 @ 1 65
Azotone (beef)	1 95 @ 2 00
Azotone (pork)	1 95 @ 2 00
Tankage (concentrated)	1 70 @ 1 72½
Tankage (9 and 20)	1 80 @ 1 82½ & 10
Tankage (7 and 30)	17 00 @ 17 50
Fish (dry)	20 00 @
Fish (acid)	12 00 @

The British steamship R. F. Mathews cleared last week from Savannah, Ga.,

for Landserona with 2500 tons of Florida phosphate rock, valued at \$25,000.

### Phosphate and Fertilizer Notes.

The shipments of phosphate rock from the port of Savannah, Ga., for June amounted to 2500 tons, shipped by the Dutton Phosphate Co. to Landskrona.

The Sterling Kaolin Co. of Aiken, S. C., was chartered last week, with a capital stock of \$15,000. The officers of the company are J. B. McMillan, president, and John M. Posey, secretary and treasurer.

It is stated that the Virginia-Carolina Chemical Co. of Richmond, Va., has purchased the entire plant of the Albany Fertilizer Co. of Albany, Ga. The consideration is understood to be about \$25,000. The plant is one of the best-equipped fertilizer factories in the State.

Mr. Albert F. Dewey reports the shipments of phosphate rock from the port of Punta Gorda for the month of June at 10,616 tons, previously reported 38,730 tons, making a total for six months of 49,346 tons, of which 21,866 tons were domestic and 27,480 tons were foreign. The shipments were all by the Peace River Phosphate Mining Co.

The domestic shipments of phosphate rock from the port of Charleston, S. C., during the week ending the 30th ult. were as follows: Schooners Fannie Reiche 641 tons, Mary Lee Patton 836 tons and The Josephine 950 tons, all for Baltimore. The total shipments since September 1, 1898, to June 30, 1899, aggregated 89,977 tons, against 81,800 tons for the corresponding period last year.

The shipments of phosphate rock from the port of Fernandina, Fla., for the month of June aggregated 20,575 tons, of which 9255 tons were for Stettin, Germany, 2950 tons for Hamburg, 2400 tons for Ghent, 2970 tons for Antwerp and 3000 tons for Garston. The amount previously reported during the present year was 113,593 tons, making the total shipments for five months 134,168 tons.

The foreign demand for Tennessee phosphate rock continues strong, and for the month of June shipments from Pensacola were quite liberal. In April last 5282 tons of Tennessee rock were shipped to Continental ports, and in May 11,710 tons were shipped to the same markets. This phosphate rock all came from the Mt. Pleasant district in Tennessee, while Hickman and other points furnish the domestic trade.

A meeting of the phosphate commissioners is to be held in Columbia on the 8th inst., when it is expected that matters of importance connected with the industry will be discussed. The situation is said to be very encouraging with both land and river miners. A decided activity prevails, and the demand from both domestic and foreign sources is good. The State's royalty for this year, it is said, will likely run up to between \$80,000 and \$100,000.

### Cotton and Pipe Combinations.

Two combinations are being formed of industries in which Baltimore companies are largely interested. What is known as the Mount Vernon-Woodberry Cotton Duck Co., it is stated, represents the principal cotton mills in the northern suburbs of Baltimore, also the mills at Laurel and Franklinville. The plans of combination provide a capital stock of \$23,500,000, and it is understood a charter will be secured for the new organization in Delaware.

The Central Foundry Co., recently incorporated in New Jersey, includes four Baltimore concerns—Messrs. J. Register & Sons, the McShane Manufacturing

Co., Bartlett, Hayward & Co. and the Jones Hollowware Co. The combination represents about \$18,000,000 capital stock, and includes the principal manufacturers of soil pipe in this country.

### TRADE LITERATURE.

**The Ideal Method.**—It is claimed by the Bullock Electric Manufacturing Co. that electric-power applied to the driving of machinery by connecting the motor direct to the machine is the ideal method. The company moreover claims to have the only perfect system of control by this method. Address company at Cincinnati, Ohio, for Bulletin 251.

**Heating and Ventilating Appliances.**—Economy, durability and efficiency are three essential points of any device that aims to give its user satisfaction. Such points of merit have been ascribed to the Stanton seamless warm-air furnace and the general line of heating and ventilating appliances made by the Stanton Heater Co. of Bellaire, Ohio. This company is building a new plant at Martin's Ferry, Ohio, to which its business will be removed about August 15. Catalogue No. 3 tells of the Stanton furnace, and copy may be had on application.

**Engine for Paris Exposition.**—The Buffalo single vertical, class "A," automatic engine recently exhibited at the Madison Square Garden electrical exhibition has been sold through the New York office of the Buffalo (N. Y.) Forge Co. to the Wilson Smokeless Coal Process Co., No. 11 Broadway, New York city, to be used for running a pressure blower in connection with the boiler plant of Paris World's Exposition to be held in 1900. The same high-grade construction is employed on all the upright engines as that of the Buffalo Forge Co.'s horizontal center-crank automatic engine which received highest award and gold medal for best service in the power-house of the Transmississippi and International Exposition, held at Omaha during the summer of 1898, now being used at the electric-light plant of the Bowery Bay Building & Improvement Co., Long Island City, N. Y. Superiority of construction, simplicity of design, excellence of finish and refinement of regulation have placed the Buffalo Forge Co.'s engine in the foremost rank of high-speed engines. For electrical work and, in fact, any refinement service its record is unexcelled. A new engine catalogue, now in press, will be sent to anyone wishing same.

**A Railroad's Public Library.**—The extent to which the great railroad systems of the United States invoke the aid of printer's ink in their laudable ambition to develop passenger business is something that rather astonishes the foreign transportation manager. Take the Boston & Maine Railroad, for instance. Its summer publications number sixteen different volumes, all but one of them illustrated, and making in themselves a veritable library of railroad literature. They cover in almost minute detail every one of the various "sections" reached by the road and its connections. No one need be at a loss to secure any desired information as to the various mountain, seashore, lake or country resorts or the fishing or shooting regions of the territory. It takes time and skill to accurately collate all these essential facts and statistics, and it costs lots of money besides, but the educational and artistic result is something that the company may well feel proud of. The latest addition to the Boston & Maine's library is "The Valley of the Connecticut and Northern Vermont," descriptive of the wonderful summer region of the Connecticut river and continuing to Lake Champlain and Lake Memphremagog in the north. A copy of this book will be sent by the passenger department of the Boston & Maine Railroad on receipt of two cents in stamps, as will also the indispensable "Summer Resorts and Tours" and the other descriptive publications (two cents in stamps for each book), "All Along Shore," "Among the Mountains," "Lakes and Streams," "Southeast New Hampshire," "Merrimack and Valley," "Central Massachusetts," "Southwest New Hampshire," "Lake Sunapee," "The Monadnock Region," "Lake Memphremagog and About There" and "Fishing and Hunting." Six cents in stamps will procure a copy of either "New England Lakes," "Rivers of New England" or "Mountains of New England," magnificent new portfolios of half-tone reproductions of original photographs just issued by the Boston & Maine passenger department. These are veritable editions de luxe in the way of railroad literature.



# CONSTRUCTION DEPARTMENT.

**THE MANUFACTURERS' RECORD** seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with every one interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

## ALABAMA.

Alabama City—Water Works.—The Dwight Manufacturing Co. will construct a system of water works.

Birmingham—Iron Furnaces and Mines, Coal Lands, etc.—Messrs. John E. Searles and Abram S. Hewitt of New York and New York and Boston associates, the International Trust Co. of Baltimore, Messrs. Midendorf, Oliver & Co. of Baltimore, John L. Williams & Sons of Richmond, Va., and others have completed an important coal and iron consolidation. A syndicate, with a capital stock of \$5,000,000, has been organized, all of which has been underwritten, and has purchased the Clifton Iron Co. of Alabama, owning 30,000 acres of land and two furnaces; the Standard Coal Co., owning 32,000 acres of coal land; the Mary Pratt furnace in Alabama, the Gate City properties adjacent to Birmingham, the Gadsden (Ala.) furnace and large ore properties in connection therewith, four furnaces and several hundred coke ovens. Repairs to some of the furnaces, the building of 400 or 500 coke ovens and the trebling of the coal output are now under way and will be completed within about four months, when the company will have an aggregate capacity of 180,000 tons of pig iron per year and a daily output of over 2000 tons of coal. T. G. Bush, president, Anniston, Ala., can give particulars.

Eufaula—Cotton Mills.—The Chewalla Cotton Mills will hold a meeting to vote upon a proposition to incur a bonded indebtedness not exceeding \$50,000 for the purpose of doubling its capacity; present equipment 3328 spindles and eighty-four looms.

Eufaula—Cotton Mill.—The Eufaula Cotton Mills will put in new boiler and engine and possibly double its capacity.

Gilbertsboro—Saw Mill.—Hickman & Wiggs will rebuild at once their saw mill reported burned.

Oneonta—Water Works.—Alber & Byrne of Birmingham, Ala., will prepare plans and specifications for a system of water works for Oneonta and superintend the construction of same; contract for sinking well has been awarded; machinery contracts will not be let until after well is finished. Address A. J. Ketchum, mayor.

Talladega—Coal Mines, Iron Furnaces, etc.—Eugene Zimmerman of Cincinnati, Ohio, has purchased the Talladega iron furnace, 2000 acres of ore lands and 1000 acres of coal lands for \$123,000; 200 coke ovens and four double ore washers will be constructed at once, the machine shops enlarged and additional machinery installed. The Alabama Coal, Iron & Railway Co. has been chartered with Mr. Zimmerman, president, for the purpose of operating this property, which will give employment to 300 operatives. J. Carlsen of New York will be secretary and treasurer; George Duglinson of Talladega, assistant treasurer, and G. A. Mattison of Talladega, general superintendent.

## ARKANSAS.

Arkansas—Saw Mills, etc.—The Empire Lumber Co. of No. 1142 Seneca street, Buffalo, N. Y., reported last week, has closed contract for 19,000 acres of timber land in Southern Arkansas and will erect at once two saw mills; F. W. Vetter, manager.\*

Forrest City—Ice Factory.—The Forrest City Ice Co., reported last week as incorporated, will put in operation at once a five-ton ice factory.

Little Rock—Coal Mines.—John A. Mitchell has purchased for \$25,000 the mines of the Ouita Coal Co. of Johnson county.

## FLORIDA.

Miami—Machine Shops and Roundhouse.—The Florida East Coast Railway will erect machine shop and roundhouse; J. R. Parrott, general manager, St. Augustine, Fla.

Monticello—Electric-light Plant.—Max Golphin will establish an electric-light plant.

Monticello—Telephone System.—Mr. Drew of Madison will establish a telephone exchange in Monticello.

## GEORGIA.

Adairsville—Flour Mill.—J. M. Veach & Co. have reorganized, with George A. Veach, president; G. M. Boyd, vice-president and general manager; H. M. Veach, secretary-treasurer; company recently overhauled its mill and installed new machinery at a cost of \$10,000.

Albany—Compress.—The Georgia Cotton Co. is installing a new 2000-ton Webb press to cost \$25,000, as recently noted.

Atlanta—Candy and Cracker Factory.—Harry Schlesinger will enlarge his candy and cracker factory to double capacity at a cost of \$15,000; sixty additional operatives will be employed.

Augusta—Creosoting Plant.—W. E. Moore of the Augusta Railway & Electric Co. has purchased a creosoting plant at Fernandina, Fla., and will remove it to Augusta; will treat poles eighty feet in length.

Augusta—Machine Shops.—The Georgia Railroad is making extensive improvements to its shops; the air-brake plant is being extended, air lifts being introduced throughout and other improvements made. Address Thomas K. Scott, general manager.

Cartersville—Ochre Mill.—John Pastell and Robert Couper have formed a company and are erecting an ochre mill.

Columbus—Cotton Mill.—The Columbus Manufacturing Co., lately reported as incorporated for the erection of a cotton mill, will install 10,000 spindles; site for the mill has been purchased.

Elberton—Cotton Mill.—W. O. Jones, L. M. Heard and others are endeavoring to organize a \$150,000 stock company to erect a cotton mill.

Gainesville—Cotton-oli Mill.—The company lately reported as being organized by J. T. Woodside of Pelzer, S. C., and others for the erection of a 30-ton cottonseed-oli mill has been incorporated as the Gainesville Cotton Oil Co., with a paid-up capital of \$15,000.

Greensboro—Cotton Mill.—The Mary-Lella Cotton Mills, recently reported as incorporated, will put in equipment of 5000 spindles and 100 looms.

Macon—Planing Mill, Sash, Door and Blind Factory.—The Massee Manufacturing Co. will erect a planing mill, sash, door and blind factory, as lately reported; cost, \$50,000.

Macon—Candy Factory.—The Johnson-King Company has been organized, with Call Johnson, manager, for the establishment of a candy factory.

Macon—Cotton Factory.—The Chamber of Commerce has under advisement the organization of a stock company for the erection of a co-operative cotton mill. Address George A. Smith, president.

Macon—Knitting Mill.—Post D of the Travelers' Protective Association proposes the organization of a company for the erection of a knitting mill. Address Minter Wimberly.

Milledgeville—Clock Factory.—C. W. Ennis and C. A. Robertson have incorporated the Wonderful Clock Co. to manufacture Robertson's clock; capital stock \$25,000.

Quitman—Cotton Mill.—The Quitman Cotton Mills will be put in operation by J. W. Spain, who was recently reported as organizing a \$100,000 company for the establishment of a cotton mill; old building will be overhauled and new engines, boilers and machinery will be installed.

Valdosta—Cotton Mills.—B. F. Strickland, E. W. Lane, R. Y. Lane, E. P. S. Denmark and others will incorporate a \$150,000 stock company for the erection of a cotton mill.

## KENTUCKY.

Augusta—Stove Foundry.—G. H. Holliday of Manchester, Ohio, will move his \$30,000 stove foundry to Augusta; will employ about forty operatives.

Inez—Stave and Heading Factory.—W. J. Fell of Huntington, W. Va., has secured timber lands in Martin county and is erecting stave and heading mill to employ about 100 operatives.

Kuttawa—Saw Mill.—The Suwanee Lumber Co. will rebuild its burned saw mill at a cost of \$25,000.

Lexington—Telephone System.—The Fayette Telephone Co. has been incorporated, with a capital stock of \$6000, by J. J. Shelby, John R. Allen and others.

Louisville—Distillery.—J. Rosenbaum, R. G. Shipman, H. F. Spooner, G. H. Westfall of New York and Thomas Darlington of Greenwich, Conn., have incorporated the Union County (Ky.) Distilling Co. to manufacture whiskies, etc.; authorized capital \$15,000.

Louisville—Planing Mill.—C. C. Mengel, Jr., & Bro. Co. will rebuild its planing mill, reported recently as burned with a loss of \$25,000.

Louisville—Tobacco Factory.—H. H. Martin & Co. of Greenville, Ky., contemplate establishing a burley plug tobacco factory in Louisville.

Louisville—Motor Carriages.—The Louisville Motor Vehicle Co. (lately reported incorporated) will not manufacture, but will operate motor carriages in connection with the Louisville Carriage Co., John E. Roche, president.\*

Louisville—Casket Factory.—President Mengel of the Board of Trade is corresponding with President H. William Hamilton of the National Casket Co. of New York city relative to the establishment in Louisville of a casket factory.

Paducah—Hardwood Factory.—Harris Bros. & Co. of Cedar Falls, Iowa, contemplate removing their hardwood factory to Paducah.

## LOUISIANA.

Crowley—Paper Mill.—A. Kaplan is considering the plan of erecting a paper mill.

Estherwood—Rice Mill.—Whitney & Corbett have received contract for the erection of a rice mill building four stories and to have a capacity of 800 barrels every twenty-four hours. The canal company, previously known as the Miller-Morris Co., has changed its name to Miller-Combs-Morris Co. and will operate the mill in connection with its canal. (This is the rice mill reported recently to be erected by F. A. Combes.)

Gueydan—Rice Mill.—The Gueydan Rice Milling Co., Limited (previously reported), has awarded contract for the erection of its \$30,000 rice mill, which will have a capacity of 1000 barrels per day.

Mansfield—Cotton Mill.—A committee has been appointed to devise ways and means for the establishment of a cotton mill. Address M. Rick or J. M. McClanahan.

Plaquemine—Electric-light Plant, Water Works, etc.—The city will issue \$38,000 of bonds to acquire the water-works plant, establish an electric-light plant and pave streets. Address "The Mayor."

## MARYLAND.

Baltimore—Telephone Factory.—The Maryland Telephone Co. has purchased site at Lexington and Courtland streets for \$80,000 and will have plans prepared (probably by Henry Brauns) for the erection of its proposed telephone factory.

Baltimore—Broom Factory.—Henry Miller has made a proposition to establish a broom factory at the city jail.

Cambridge—Woodworking Factory.—William A. Hubbard, Thomas C. B. Hubbard, Christopher Batchelor and others of Baltimore, Md., will erect a factory in Cambridge, two stories, 30x80 feet, to cost \$10,000, for the manufacture of wooden lard and butter trays, split baskets, etc.; thirty operatives.

Cambridge—Butter-dish Factory.—The Dorchester Butter Dish & Manufacturing Co. has been incorporated and will erect a factory; E. L. Zirkler, president; C. C. Batchelor, manager, and W. A. Hubbard, secretary and treasurer.

Cumberland—Holder Factory.—Feaser & Bell, 74 Park street, will equip a factory for a patent holder for collars, neckties, etc.\*

Cumberland—Hardware Company.—Arthur H. Amick, Thos. G. Pownall, Frank B. Blaul, J. W. Thomas and A. L. Glisson have incorporated the Potomac Hardware Co.

Friendsville—Lumber Plant.—The Meadow Mountain Lumber Co., W. F. Taylor of Philadelphia, Pa., president, has purchased large tracts of timber lands and will erect a mill for the development of them.

## MISSISSIPPI.

Aberdeen—Water Works and Sewerage.—The city will construct water works and sewerage systems at once. Address J. M. Acker, mayor.

Brookhaven—Saw Mill.—The Pearl River Lumber Co., recently organized, has let contract for a three-band saw mill complete.

Meridian—Fertilizer Factory.—The Meridian Fertilizer Co. will rebuild its burned plant, as reported last week; contracts have been awarded.

Williamsburg—Saw and Planing Mill.—A. K. Worthy is rebuilding his saw mill lately burned, and will soon begin rebuilding planing mill.\*

## MISSOURI.

Cape Girardeau—Paint Factory.—Matteson Bros. will rebuild their burned paint factory.

Jefferson City—Printing.—The Press Printing Co. has been incorporated, with a capital stock of \$6500, by J. H. Edwards, A. C. Shoup, T. H. Haar and others.

Kansas City—Mercantile.—Emil Scharnagle, Valentine Straub, William J. Baehr and others have incorporated the Emil Scharnagle Mercantile Co., with a capital stock of \$2000.

Kansas City—Electric-light Plant.—James D. Wade of St. Louis has applied for franchise to erect an electric-light plant in Kansas City.

Kansas City—Tannery.—The Western Tannery Co. has been incorporated, with a capital stock of \$10,000, by C. F. Morse, G. T. Stockham, C. F. Holmes and J. E. Murray.

Macon—Chartered: The Bleas Military Academy, capital stock \$25,000; incorporators, F. W. Bleas and others.

Sedalla—Canning Factory.—The Sedalla Fruit Gardens, Canning & Nursery Co. has been organized for the establishment of a canning factory, etc. Address Walter E. Good, secretary.

St. Joseph—Manufacturing.—Chartered: The St. Joseph Manufacturing Co., with a capital stock of \$15,000, by Kink Upton, F. S. Farrow, B. J. Gilling and others.

St. Louis—Brass Foundry.—Incorporated: The J. W. Garratt Brass Foundry Co. by Charles Erickson, Frank Haggenjls and others; capital stock \$10,000.

St. Louis—Shirt Factory.—Chartered: The Agatstein Shirt Co., by Morris Goldman, P. H. Agatstein and Isaac Agatstein; capital stock \$5500.

St. Louis—Mining.—Geo. A. Emory, Denver, Col.; O. C. Palmatier, Francis M. Dunn, J. P. Cowpenny and Walter W. C. White of St. Louis have incorporated the Blackstone Gold Mining Co. to conduct a general mining business; authorized capital \$2,000,000.

Webb City—Lead and Zinc Mines.—The Ozark Zinc Co. (lately reported as organized) will establish a \$15,000 plant for lead



and zinc mining; the capacity of tallings mill will be about 500 tons in ten hours, and the mill running ore from the mine will be 100 tons in ten hours; H. H. Hughes, manager.

#### NORTH CAROLINA.

Asheville—Bark and Lumber Company.—Thomas Hackett, J. T. Croyle and Jacob Parker have incorporated the Western North Carolina Bark & Lumber Co., with an authorized capital of \$20,000.

Buckshoal—Flour Mill.—Thomas & Lee White have contracted for machinery for a roller flour mill.

Charlotte—Sash-cord Factory.—The O. A. Robbins Co. (reported during the week) is enlarging its plant by erecting a new three-story building 40x80 feet and by making other enlargements; will probably add about 800 spindles and some braiding machinery later.

Elizabeth City—Canning Factory.—Mr. Robinson will erect a canning factory to employ 400 operatives.

Elizabeth City—Street Improvements.—The city will contract soon for \$10,000 to \$20,000 worth of street improvements. Address "The Mayor."

Fayetteville—Rice Mill.—Jas. D. McNeill, recently reported as having awarded contract for a 30-barrel flour mill, has also let contract for a new rice-hulling and cleaning outfit.

Lincolnton—Cotton Mill.—The Indian Creek Manufacturing Co. has been incorporated for the manufacture of cotton and woolen goods, operation of saw and grist mills, etc.; capital stock is \$30,000 to \$100,000. W. A. Rudisill and M. S. Rudisill of Lincoln county, C. E. Neisler of Gaston county and S. A. Manney of Cleveland county are the incorporators.

Mayodan—Cotton Mill.—The Mayo Mills will erect an addition; present equipment 21,000 spindles.

Mayodan—Cotton Mill.—R. J. Reynolds, Winston, N. C.; F. H. Fries, Salem, N. C.; W. C. Ruffin of Mayodan and B. N. Duke of Durham, N. C., have incorporated the Avalon Cotton Mills, with a capital stock of \$150,000, for the manufacture of cotton goods, including spinning, dyeing, weaving, printing, bleaching, etc.

Monroe—Cotton-ole Mill.—J. H. Lee, R. A. Morrow, W. C. Heath, J. M. Belk, W. B. Houston and others have incorporated the Monroe Oil & Fertilizer Co. for the erection of a 40-ton cottonseed-oil mill; \$20,000 has already been subscribed.

New Berne—Woodworking Factory.—M. L. Hollowell is organizing a company, with a capital stock of \$8000, for the manufacture of sash, doors, blinds, balusters, table legs, etc.\*

New Berne—Cotton Factory and Tobacco Stemmer.—A cotton mill and tobacco stemmer will probably be erected. Address J. E. Latham, president Chamber of Commerce.

Raleigh—Grain Elevator, etc.—The Farina Roller Mills Co. has awarded contract for improving its flour mill, as lately reported; will also erect a 20,000-bushel grain elevator costing about \$12,000, contract for which has not been let.

Rockingham—Water Works.—The city will issue bonds for construction of water works. Address W. N. Everett, mayor.

Sanford—Cotton Mill.—The company lately reported as forming for the erection of a 10,000-spindle mill has been incorporated as the Sanford Cotton Mill, with a capital stock of \$100,000, which may be increased to \$500,000. W. H. Watkins and T. L. Chisholm of Ramsey, John W. Scott, W. J. Edwards, A. P. McPherson and D. E. McIver of Sanford are the incorporators.

Shelby—Cotton Mills.—The Shelby Cotton Mills, lately reported as incorporated, has let contract for erection of building, two stories, 75x250 feet; 5000 spindles and 250 looms will be installed; 500 operatives to be employed; H. D. Wilson, president.

Shelby—Electric-light Plant.—There is some talk of an electric plant being placed on Broad river about twelve miles from Shelby; it has been stated that by cutting a small canal on main Broad river a 30-foot fall can be had. Address for information H. D. Wilson.

#### SOUTH CAROLINA.

Charleston—Bicycle, Gun, Lock, etc., Factory.—B. H. Worthen, George H. Swan and George H. Peterman have incorporated the B. H. Worthen Arms Co. to manufacture and sell bicycles, guns, locks, etc.; capital stock \$2500.

Columbia—Drug Company.—E. H. Cain, W. B. Lawrence, W. A. Clark, W. G. Childs and others have incorporated the Mills

Drug Co. to conduct a general drug business; capital stock \$5000.

Florence—Cotton Mill.—J. W. McCown, W. R. Barringer, F. S. Hoag, B. H. Rucker, T. C. Willoughby, W. J. Brown and others will incorporate a \$200,000 company for the establishment of a cotton mill.

Georgetown—Electric Company.—Frank K. Bull of Racine and E. E. Mandeville of Camden have incorporated the Georgetown Electric Co.

Graniteville—Kaolin Mines.—J. B. McMillan, J. M. Posey and others, lately reported as having incorporated the Sterling Kaolin Co., already have mines in operation employing about fifteen operatives and producing from fifty to 100 tons per week.

Montclare—Saw Mill, Planing Mill, etc.—The Bridgers & McKeithan Lumber Co., Preston L. Bridgers, president, and D. T. McKeithan, general manager, of Burke, S. C., will erect a band-saw mill at Montclare with a daily capacity of 40,000 feet of lumber; plant will include three dry-kilns and adequate planing mills; contract for machinery has been let. After the completion of this mill the company will erect an additional mill for the manufacture of hardwoods with a daily capacity of 25,000 feet.

Reidsville—Ginnery and Mill.—F. M. Leonard and B. M. Anderson have incorporated the Reidsville Ginnery & Mill Co., with a capital stock of \$3000.

Warrenville—Cotton Mill.—The Warren Manufacturing Co., which just completed its 30,000-spindle and 800-loom mill, has increased its capital stock from \$200,000 to \$500,000.

Yorkville—Flour Mill.—W. Meek Faulkner has purchased machinery for a 30-barrel flour mill.

#### TENNESSEE.

Bristol—Cotton Mill.—Captain McNeill and J. M. Fulton have purchased the Sparger land and cotton mill for \$10,000 and will put the mill in operation.

Brownsville—Water Works.—The recent bond issue of \$27,500 for public improvements will be for improvements to the water works; pipes will be extended and contract has been awarded for pumping station and air-compressing engine which will have a capacity of 500,000 gallons per day. Address "The Mayor."

Chattanooga—Coal Mines, Coke Ovens, etc.—Major C. O. Guthrie is representing St. Louis (Mo.) capitalists, who will organize the Cumberland Coal & Coke Co. for the development of 300,000 acres of coal land in Cumberland, Roane and other Tennessee counties. It is the intention of the company to construct 300 coke ovens.

Chattanooga—Cotton Compress.—Investigations are being made relative to the establishment of a cotton compress. For information address Alex. Glover.

Chattanooga—Telephone Exchange.—P. T. Farnsworth of Memphis, representing the North Electric Co. of Cleveland, Ohio, is investigating with a view of establishing a new telephone exchange in Chattanooga.

Chattanooga—Electric-power Plant.—The Frank S. Hambleton syndicate of Baltimore, Md., which recently purchased the several railway properties in Chattanooga, will erect a central power station to cost \$500,000 and convert the Chattanooga & Lookout Mountain steam road into an electric line; it is ten miles long.

Dayton—Coal Mines.—J. T. Dean, R. N. Gillespie, Fred. Howard, J. B. Swofford and others have incorporated the Beatrice Coal Mining Co. of Rhea county, with a capital stock of \$40,000.

Dickson—Stave and Heading Factory and Coopers.—The Standard Oil Co. is investigating with a view of establishing in Dickson a stave and heading factory and coopers; plant will consume product of five other mills than the one to be operated at Dickson, and will employ about 100 laborers.

Knoxville—Marble Company.—C. I. Schoone, C. J. Bush, G. E. Bock and others have incorporated the United States Marble Co., with a capital stock of \$25,000.

McKenzie—Electric-light Plant and Water Works.—The city is considering propositions for erection of electric-light plant and water works to cost \$20,000. Address S. C. Hearne, chairman committee.

Memphis—Telephone System.—The city has entered into contract with the People's Telephone Co. of New Orleans for the introduction of its system in Memphis.

Memphis—Cotton Compress.—S. R. Montgomery, J. Shipway, J. M. Fowles, J. N. Falls and others have incorporated the Montgomery Compress Co. for the construction of a cotton compress; capital stock \$100,000.

Memphis—Compress and Warehouse.—The Covington Compress & Warehouse Co. has been incorporated to construct and operate a cotton compress by J. A. Evans, T. B. Hill, J. E. Kearney and E. Taylor.

Mossy Creek—Zinc Mines.—Lovell H. Jerome, late of New York, will operate on an extensive scale the John Weir zinc mines; considerable new machinery is being installed, including a large crushing and concentrating machine.

Mountain City—Lumber and Mining Company.—James E. Gillingham, George Warner, George F. Craig, A. J. Dull and David Baird have incorporated the Empire Lumber & Mining Co. of Johnson county, with a capital stock of \$150,000.

Nashville—Lumber Mill.—R. Orr, M. M. Gardner, G. P. Thurston and others have incorporated the Nashville Lumber Manufacturing Co. to manufacture lumber, etc.; capital stock \$50,000.

Tullahoma—Drug Factory.—The Barnes Botanic Drug Co. has been incorporated for the manufacture of drugs by S. O. Barnes, H. Q. Atterbury, C. D. Hills and others.

#### TEXAS.

Belton—Cotton Factory.—The erection of a cotton factory is agitated. Names of interested parties will be announced later.

Cuero—Cotton Mill.—The Excelsior Manufacturing Co. will increase its capital stock to \$100,000 and enlarge its plant to double capacity; mill has not been in operation for three years; C. L. Sadler, president, and E. Mudge, Jr., secretary-treasurer.

Ferris—Cotton Gin.—Mutz & Cassidy have established and put in operation a round-bale ginnery.

Fort Worth—Distillery.—Henry C. Rodenberg of St. Louis will establish a 200-gallon-capacity distillery in Fort Worth.

Galveston—Wharf and Terminal Improvements.—It is said that the syndicate composed of Mr. Osgood and others which recently purchased the Gulf & Interstate Railway will construct a number of freight barges and expend \$400,000 for wharf and terminal improvements at Bolivar.

Luling—Water Works, Compress, etc.—Luling Water Works, Jno. Orchard, superintendent, is improving its works, as lately reported; improvements include about 3000 feet of 10-inch main and 500 of four-inch, with fittings and supply pipes for round-bale compress plant covering four acres of ground, with 300-horse-power engine.\*

West—Mercantile.—S. B. Jones, D. R. Reeder, Julius P. Slevin and others have incorporated the West Mercantile Co., with a capital stock of \$25,000.

#### VIRGINIA.

Berryville—Water Works.—It has been decided by popular vote to issue \$25,000 of bonds to purchase the property and franchise of the Berryville Water Co. and complete the works. Address "The Mayor."

Berryville—Lead Mines.—Philadelphia (Pa.) and other capitalists have obtained an option on the property of Moses B. Wiley, near Berryville, and incorporated the Shenandoah Mining Co., with a capital stock of \$50,000, for the development of lead deposits.

Bristol—Iron Furnace.—The Virginia Iron, Coal & Coke Co. (lately reported) is enlarging and improving the Bristol furnace; new boilers and other machines are being installed and the capacity increased from 120 to 175 tons per day; will be in blast about September 1.

Danville—Cigar Factory.—W. W. Haynie, manufacturer of cigars, has incorporated the Haynie Cigar Co., with a capital stock of \$25,000; W. W. Haynie, president; M. P. Jordan, vice-president; S. L. Haynie, secretary and treasurer. Mr. Haynie will enlarge his cigar and tobacco factory.

Dublin—Flour Mill.—J. E. Caldwell is putting new machinery in his flour mill, as lately reported, increasing capacity from fifty to seventy-five barrels.\*

Emporia—Cotton Mill, etc.—W. Samuel Goodwyn and others (lately reported as having purchased riparian rights along the Meherrin river and to establish cotton mill and other industries) have incorporated the Meherrin Power Co., with a capital stock of not less than \$50,000 nor more than \$100,000; charter provides for all necessary dams, raceways, canals and other structures incident to the development of water-power; upon the 2500 available horsepower and the cost of development and erection of plant it is estimated will be \$100,000; Judge W. Samuel Goodwyn, president, Emporia, Va.; N. H. Massey, Danville, Va., vice-president; W. F. Deal of Emporia, secretary; H. Schwartz, treasurer.

Harrisonburg.—Chartered: The Gibbs Automatic Gate Co., to manufacture all kinds of gates; capital stock \$10,000; incorporators, G. P. Gratton, G. Chrisman, H. W. Bertram, G. G. Gratton and others.

Lynchburg—Drug Factory.—Payne, Seay & Anderson have incorporated for the manufacture of drugs; George A. Payne, president; Charles G. Seay, vice-president; Jas. A. Anderson, secretary and treasurer; capital stock \$50,000.

Lynchburg—Iron Foundry.—The Glamorgan Pipe & Foundry Co. will erect a fire-proof foundry building to replace the one recently burned; loss on burned plant was \$100,000.

Newport News—Mattress Factory.—Peninsula Flour & Feed Co., Arthur Connell, manager, contemplates the establishment of a mattress factory.\*

Norfolk—Ferry Company.—E. E. Bennett, H. W. Bennett, J. W. Bennett and others have incorporated the Bennett Ferry Co., with a capital stock of \$5000.

Norfolk—Railway-motor Company.—The Virginia Railway Motor Co. (lately reported as incorporated) has for its object building and equipping street railways, furnishing motive power on standard electric tracks and cars for existing roads and to conduct a general manufacturing business in line of car propulsion; C. W. Tebault, secretary and treasurer.

Norfolk—Real Estate.—The Norfolk Instalment Land Co. has been incorporated to conduct a general real-estate business, with J. W. Perry, president; G. M. Serpell, vice-president; H. L. Page, secretary-treasurer; capital stock \$25,000.

Norfolk—Water Works.—The Norfolk County Water Co. (lately reported as incorporated to supply water) has a capital stock of \$100,000 and is authorized to bond for \$500,000. Work has already been started on the plant. For particulars address J. W. LeDoux, chief engineer, 112 North Broad street, Philadelphia, Pa.

Norfolk—Real-estate Improvement.—The Abbott Land Co. has been incorporated for the purchase of real estate and improvement of same by the erection of buildings, etc. N. B. Abbott of Columbus, Ohio, is president; W. R. Walke of Columbus, Ohio, vice-president; N. B. Abbott of Columbus, Ohio, treasurer, and O. D. Jackson of Norfolk, secretary; capital stock from \$25,000 to \$50,000.

Radford—Saw Mill.—J. E. Caldwell of Dublin, Va., will establish a saw mill of 20,000 feet capacity at or near Radford.\*

Roanoke—Stave Mill.—W. A. Pedigo is establishing a stave mill to cut 20,000 staves per day (not a saw mill to cut 20,000 feet per day, as lately reported).\*

Roanoke—Coal Mines, Coke Ovens, etc.—The Red Jacket Coal Co. has been incorporated for coal mining, coke making and manufacturing the various products thereof. H. D. Lafferty is president; C. A. Fisher, secretary-treasurer, and with Lucian H. Cocke, W. H. H. Dorney and F. A. Hill, form the board of directors; capital stock to be not less than \$50,000 nor more than \$100,000.

Saltville—Glass Works, Soda-ash Works, etc.—It is reported that the United States Plate Glass Co. will purchase the Mathieson Alkali Works at Saltville; plant covers fifty acres of lands and employs 1500 operatives; it is said to be the intention of purchasers to erect a \$1,500,000 glass plant; the manufacture of soda-ash, salt, etc., will be continued and glass introduced.

Staunton—Flour Mill and Grain Elevator.—Dr. J. I. Triplett and L. D. Myerly have leased the mills of the Staunton Milling Co. and will operate under the name of the Staunton Mills; the capacity of the present elevator is being doubled and a new one erected.

#### WEST VIRGINIA.

Ballinger—Coal Mines.—W. H. Holland, George Holland, C. H. Holland of Ballinger, L. A. Barker and T. B. Kaufman of Charleston have incorporated the Ballinger Coal Co., with an authorized capital of \$100,000, for mining purposes.

Benwood—Coke Ovens.—The Riverside Iron Co. has commenced work on its coke plant previously noted; plant will contain sixty ovens.

Cedar Grove—Coal Mines.—The Cedar Grove Colliery Co. has been incorporated by J. S. Harris, F. V. Harris, J. W. Shearer, J. S. Miller and J. G. W. Tompkins, with a capital stock of \$10,000; company has leased and will develop on an extensive scale property formerly operated by the Cedar Grove Mining Co., together with 400 acres of adjacent coal lands, all necessary houses, storehouses, tipples, entries, inclines, etc.;



daily output is about 400 tons, and 250 operatives are employed.

Charleston—Oil and Gas Company.—Geo. W. Connell, Peter Silman, E. B. Dyer and others have incorporated the Hancock Oil & Gas Co., with an authorized capital of \$500,000; company has leased 800 acres of land in Hancock county and will bore for oil.

Charleston—Electric Plants, Water Works, etc.—Clark Howell and J. R. Shanklin of Charleston, J. W. Spencer, W. R. Gunn and H. R. Howard of Point Pleasant have incorporated the Howell & Shanklin Construction Co., with an authorized capital of \$100,000, for the construction and equipment of water works, electric-light and power plants, etc.

Macdonald—Coal Mines.—The Macdonald Colliery Co. has 3500 acres of coal land, and will sink shafts varying from 150 to 350 feet, and wants bids on the sinking of two shafts at present.

Montgomery—Water Works.—W. F. Garrettson has been granted franchise for construction of water works with daily capacity of 150,000 gallons and to cost \$20,000.\*

Philippi—Coal Mines, etc.—C. F. Teter of Philippi, A. G. Dayton and others have sold 20,000 acres of coal land in Barbour county and organized three separate companies for the development of the coal, the investment to be \$370,000; the Philippi Coal & Mining Co. has been reorganized and purchased 3100 acres and has in operation a \$30,000 electric-mining plant, and other improvements are being introduced; the Southern Coal & Transport Co., composed of New York and Michigan capitalists, has purchased 3000 acres near Philippi; the third sale was for 14,000 acres in the vicinity of Burnsville, in which Shaver Bros. of Baltimore are the leading holders.

Point Pleasant—Electric-light Plant and Water Works.—The Point Pleasant Water & Light Co., recently reported as incorporated, has been granted franchise for construction of water works and electric-light plant.

Wheeling—Oil and Gas Company.—B. E. Allen, David Handley, Columbus, Ohio; John B. Relley, Benwood, W. Va.; D. E. Handley and C. A. Mabon of Wheeling have incorporated the Relley Oil & Gas Co. to conduct a general oil and gas business; authorized capital \$200,000.

Wheeling—Electric-power Plant.—Robert C. Dalzell of Leatherwood, W. Va.; Joseph Pledel, J. A. Miller, C. H. Copp and J. T. Adams of Wheeling have incorporated the National Light, Heat & Power Co. to manufacture, generate, use, supply and sell electricity for light.

#### BURNED.

Gilbertsboro, Ala.—Hickman & Wiggs' saw mill; estimated loss \$2000.

Kinston, N. C.—J. A. Harvey's shingle mill.

Kinston, N. C.—The Kinston Electric Light Co.'s power-house damaged by fire.

Nashville, Tenn.—Nashville Adamant Co.'s building; loss \$3000.

Nashville, Tenn.—Robertson Bros.' planing mill and offices; loss \$5000.

Nashville, Tenn.—Edgefield & Nashville Manufacturing Co.'s furniture factory; loss \$50,000.

Tullahoma, Tenn.—Thos. A. Gunn's flour mills; estimated loss \$6000.

Washington, D. C.—Thomas W. Smith's lumber plant; estimated loss \$50,000.

#### BUILDING NOTES.

Baltimore, Md.—Church and Parsonage.—Plans have been prepared for the \$10,000 church and parsonage to be erected by the Deaconess Home. Address Mrs. John Neff, chairman of board.

Baltimore, Md.—Apartment-house.—Thos. W. Gordon states that there is no truth in the published announcement that he is organizing a stock company to erect a 12-story apartment-house.

Baltimore, Md.—Church.—William M. Elliott, Jr., has completed plans for the new Holy Evangelist Church, which will be of brick, terra-cotta and stone and cost \$12,000. Address Rev. Harris Mallenkrodt.

Baltimore, Md.—Warehouse.—The Pennsylvania Railroad Co. will erect a six-story iron, stone and brick warehouse to cost \$135,000; plans for the building were prepared by the company's engineer.

Birmingham, Ala.—Business Building.—Rich & Biederman will erect business building to cost \$40,000, as reported last week; it will be five stories, brick, steel and terra-cotta, 50x140 feet; Hodgeson & Collignon

prepared the plans and Miles & Bradt received contract.\*

Charlotte, N. C.—School.—The city will probably issue \$25,000 of bonds for the erection of the proposed school building, plans for which were prepared by Frank P. Milburn.

Chattanooga, Tenn.—Dwellings.—Snodgrass & Field will erect two, and perhaps three, brick dwellings, not ten, as lately reported.

Chattanooga, Tenn.—School Building.—The city will petition the legislature for authority to issue \$100,000 of bonds for erection of the school building for which plans have been prepared by Frank P. Milburn of Charlotte. Address "The Mayor."

Chattanooga, Tenn.—Armory.—The board of armory trustees, James C. Howell, president, will receive bids July 15 for erection of its proposed building, 150x60 feet, for which plans were prepared by Adams & Bearden, at whose office the bids will be received. Specifications call for the roof truss to be of either iron or wood, and bids will cover both methods.

Dahlonega, Ga.—Hall Building.—Bids will be received until July 15 for the erection of Bostwick Hall on Dahlonega College grounds; it will be a two-story, 12-room structure 40x90 feet and cost \$5000. Plans were prepared by G. L. Norrman of Atlanta.

Greensboro, N. C.—Hotel.—Jordan, Sinclair & McDonald will erect a five-story hotel, with all modern improvements, including elevators, electric lights, gas, baths, etc.

Kansas City, Mo.—Car Barn.—The Metropolitan Street Railway Co. will erect a \$12,000 car barn.

Kansas City, Mo.—Dwelling.—Jacob Barzen will erect a two-story brick building 36x33 feet and cost \$10,000.

Marion, S. C.—Record Building.—The county board of commissioners have awarded contract to the B. F. Smith Fireproof Construction Co. of Washington, D. C., to build a fireproof record building.

Mount Pleasant, W. Va.—Hotel.—Mr. and Mrs. Herman D. Ruhm will erect a three-story brick hotel 52x125 feet, with pressed-brick front and stone trimmings, with all modern improvements, including electric lights, elevators, laundry, gasoline engine, etc.

Nashville, Tenn.—Dormitory.—Richard H. Hunt of New York has prepared plans for the new \$125,000 dormitory to be erected at Vanderbilt University. Address Chancellor Kirkland.

Petersburg, Va.—Business Buildings.—Augustus Wright has contracted for the erection of a \$6000 brick building to be occupied by the Old Dominion Pants Co.

Richmond, Va.—Depot.—Bids will be invited for the erection of \$60,000 depot recently reported to be erected at Richmond by the Southern Railway Co., Frank S. Gannon, general manager, Washington, D. C.; building will be 70x175 feet, of granite and gray pressed brick, with roof of green slate and a tower 100 feet high, which will have wrought-iron clock dials on all four sides. Frank P. Milburn, Charlotte, N. C., prepared the plans.

Scottsboro, Ala.—Courthouse Improvements.—Plans and specifications will be considered on July 10 for improvements to courthouse, reported during the week; improvements will consist of two-story additions and one large or two small vaults; to cost from \$5000 to \$10,000. Address J. B. Hackworth, clerk.

Sherman, Texas—Warehouse.—Murphy Dry Goods Co. has awarded contract to Charles Ritenour for the erection of a brick warehouse 27x100 feet.

St. Louis, Mo.—Dwellings.—John Sherman will erect four four-story brick and stone dwellings, 18x39 feet, brick and stone fronts, hot-water heat, cost \$42,000; Charles W. King, two apartments, three stories, 80x28 feet, brick and brownstone fronts, hot-water heat, flat tin roof, cost \$25,000; C. W. King, four brick dwellings, brick and brownstone fronts, flat tin roof, furnace heat, cost \$8000; Charles W. King, four brick and stone dwellings, three stories, 18x48 feet, hot-water heat, etc., cost \$22,000; E. C. Kellogg, nine three-story brick dwellings, press brick and Seneca stone, tin and tile roofs, hot-water heat, cost \$60,000; three brick dwellings, three stories, 18x61 feet, press brick and Seneca stone, tin and tile roofs, hot-water heat, cost \$20,000; three brick dwellings, three stories, press brick and Seneca stone, tin and tile roofs, hot-water heat, cost \$20,000; Mrs. Mary I. McAllister, three-story brick dwelling, 28x50 feet, pitch-tile roof, hot-air heat, cost \$9500; William H. Spelshouse, three-story brick

dwelling, press-brick front, flat tin roof, hot-water heat, cost \$5000.

Washington, D. C.—Buildings.—Col. Robert I. Fleming will erect residence to contain heating apparatus, laundry and other conveniences. Waddy B. Wood has prepared plans for residence of gray brick, with stone and copper trimmings, with red tile roof, for Mrs. Mary I. McAllister. Mrs. S. H. Wilmot is erecting a two-story brick school building 28x73 feet; W. L. Turner, builder. W. L. Turner is erecting residence, two-story, press brick and brownstone, mansard roof, baths, etc.

Washington, D. C.—Schoolhouse.—Sealed proposals will be received until July 15 for constructing an eight-room school building. Blank forms of proposals and specifications and information can be obtained upon application at the office of the inspector of buildings. Usual rights reserved. Proposals must be indorsed on outside "Proposals for constructing an eight-room school building for the District of Columbia." John B. Wight, John W. Ross, Lansing H. Beach, commissioners District Columbia.

Wilmington, N. C.—Business Building.—Plans have been completed by H. E. Bonitz for the erection of a three-story, 67x50-foot, building, finished in press brick, with terra-cotta and galvanized-iron trimmings.

#### RAILROAD CONSTRUCTION.

##### Railways.

Aberdeen, N. C.—John Blue, president of the Aberdeen & Rockfish Railroad Co., writes the Manufacturers' Record that it is considering an extension of about six miles in length from Raeford, the present terminus, to reach timber land. No decision has been reached as yet.

Albany, Texas.—Ralls and other material have been received for an extension of the Texas Central from Albany to Stamford. Contracts have recently been let. The extension will be about forty miles in length. Charles Hamilton of Waco is general manager.

Alberene, Va.—R. E. Shaw, chief engineer of the Alberene Railroad, advises the Manufacturers' Record that the company has decided to extend its line from its present terminus to Charlottesville, Va., if satisfactory arrangements can be made for connections; the extension will be thirteen miles in length.

Ashepole, N. C.—John R. Kenly of Wilmington, N. C., general manager of the Atlantic Coast Line, writes the Manufacturers' Record that the railroad between Ashepole and Boardman will be ten miles long. Surveys have not as yet been completed.

Atlanta, Ga.—The Collins Park & Belt Railroad Co. has secured a franchise from the town of Edgewood to construct its tracks through that place. It is proposed to build from Atlanta to Decatur. J. C. Simmons is president of the railroad company.

Atlanta, Ga.—It is now stated that the proposed line in which Edwin P. Ansley is interested may be built to a point near the Chattahoochee river in connection with the street railway system. Mr. Ansley has asked for a franchise from the city council.

Augusta, Ga.—It is reported that the proposed electric railroad between Augusta and Aiken, a distance of fifteen miles, will be surveyed to include the towns of Bath, Langley and Graniteville, S. C.

Calro, W. Va.—The Calro & Kanawha Valley Railroad, it is reported, will be extended from its present terminus a distance of fifteen miles. W. S. Wilson, at Parkersburg, W. Va., is president of the company.

Calvert, Texas.—The Calvert, Waco & Brazos Valley Railroad Co. has been chartered, with \$75,000 capital stock, to construct a railroad in the Brazos valley to connect with the International & Great Northern Railroad in Robertson county. Among those interested are Alfred L. Howard and George N. Noble.

Chattanooga, Tenn.—It is stated that one of the plans of the company which is combining the street railroad systems in Chattanooga is to immediately convert the Chattanooga & Lookout Mountain into an electric line, and that provision will be made for this purpose. The line is ten miles in length. J. T. Crass is president of the original company.

Clarksburg, W. Va.—Messrs. Gooch, Rinehart & Dennis, contractors for the railroad between Clarksburg and New Martinsville, inform the Manufacturers' Record that most of the contracts for grading have been sublet. The Mountain State Construction Co. will purchase the bridges, also the necessary rails.

Columbia, S. C.—Vice-President St. John of the Seaboard Air Line informs the Manufacturers' Record that rails and other material have been purchased for the branch of the Seaboard Air Line from Cheraw to Columbia. M. J. Condon of Knoxville, Tenn., has the contract; 80-pound rails will be used and the line is to be completed by December 15.

Columbia, S. C.—The latest report concerning the Seaboard Air Line is to the effect that surveys have recently been made with the view of building an extension from Columbia to Augusta, Ga. It is also reported that the Seaboard has under consideration a plan to reach Charleston. E. St. John at Portsmouth, Va., is general manager of the company.

Conway, S. C.—Six miles of the Conway & Seashore Railroad have been completed, and the balance of the distance, eight miles, is under construction. F. A. Burroughs, at Conway, is president of the company.

Covington, La.—The East Louisiana Railroad Co. has determined to relay the present line with heavier rails and to utilize the old rails for building extensions into the timber district adjacent to the main line of the road. The necessary steel has been ordered for relaying purposes. Frank B. Hayne, at New Orleans, is general manager of the road.

Dallas, Texas.—It is now stated that arrangements have been made to build the Dallas & Fort Worth Railroad, provided the business men of Dallas will subscribe for \$20,000 worth of the stock of the company. It is understood that a New York syndicate has become interested. W. P. Connor is president of the company.

Dixon, Ky.—Irving H. Wheatcroft is interested in the company which proposes constructing an electric railroad from Dixon to Clay, Ky., also to a connection of the Illinois Central system. The line will extend through Webster county. R. L. Jackson of Dixon is another promoter of the enterprise.

Dodge, Texas.—J. T. Carey, president of the Columbia Lumber Co. and one of the promoters of the Trinity Valley Railroad, writes the Manufacturers' Record that seven miles of this line have been built between Dodge and the lumber company's saw mill. Later the road may be extended further, but no arrangements have been made as yet.

Farmville, Va.—James R. Werth, general manager of the Farmville & Powhatan Railroad Co., advises the Manufacturers' Record that the right of way is being secured for the extension to Manchester, Va. Mr. Werth may be addressed at Richmond.

Fayetteville, Ark.—J. H. McIlroy, one of the promoters of the railroad from Fayetteville to a connection with the Kansas City, Pittsburg & Gulf system, writes the Manufacturers' Record that the Arkansas Construction Co. of Little Rock has become interested in the enterprise and offers to build the road on certain conditions, which will probably be arranged. This line will be about twenty-five miles in length.

Grant City, Mo.—The Chicago, Burlington & Quincy Railroad is constructing a line from Grant City to Albany, Mo., a distance of twenty miles. W. L. Breckenridge, at Chicago, is chief engineer of the company.

Hamburg, Ark.—The Mississippi River, Hamburg & Western Railroad has been completed from Hamburg to the river, a distance of thirty-eight miles, and is now being operated. J. M. Parker, at Hamburg, is general manager.

Jacksboro, Texas.—It is reported that A. D. Emerson has secured the grading contract for the Gulf & Brazos Valley Railroad between Mineral Wells and Jacksboro, a distance of thirty miles. The company announces that the road has been graded a distance of sixty-five miles.

Lancaster, Ky.—It is reported that another survey is being made between Burgin and Jellico by way of Lancaster in the interest of the Southern Railway. The route is through a portion of Girard county. W. H. Wells, at Washington, is chief engineer of the Southern.

Little Rock, Ark.—The St. Louis, Iron Mountain & Southern Railroad Co. has asked for a franchise to construct an extension of its line in Little Rock. W. B. Doddridge, at St. Louis, is general manager.

Lynchburg, Tenn.—A correspondent of the Manufacturers' Record writes that work has begun upon the electric railroad from Lynchburg to Tullahoma, Tenn., a distance of fourteen miles. It is calculated that the line will cost about \$175,000. J. Y. Yarrington, at Lynchburg, is manager for the syndicate.

Manchester, Ky.—The Louisville & Nashville Railroad Co. is reported as making



surveys from a point on its line in Laurel county to Manchester. R. Moutfort, at Louisville, is chief engineer of the company.

Marion, S. C.—The representatives of the Marlboro, Marion & Horry Railroad Co. have recently been examining the route of this line, which it is proposed to build between Marion and a connection with the Seaboard Air Line at Hamlet.

Maryville, Tenn.—The proposed railroad to be built by the New England Tanning Co., it is reported, will be about ten miles long. The company's offices are located at Maryville.

McDonald, W. Va.—Samuel Dixon, one of the promoters of the railroad to reach the property of the White Oak Fuel Co., writes the Manufacturers' Record that contracts have been let for five miles of line, which will connect the property with a branch of the Chesapeake & Ohio system.

Middletown, Mo.—C. H. Rigg of Bellflower, Mo., is interested in the proposed railroad from Middletown to Montgomery, Mo., a distance of twenty-one miles. Meetings are being held with the view of organizing a company to carry out this project.

Mobile, Ala.—H. Austill, one of the promoters of the Mobile & Western Railroad, writes the Manufacturers' Record that right of way is now being secured and that the company has secured an appropriation of \$10,000 through State legislation. This road is proposed from Mobile to Florence, Ala.

Morristown, Tenn.—The proposed branch of the Southern Railroad to Roe Station will be two and one-half miles in length. Surveys have been made. W. H. Wells at Washington, D. C., is chief engineer.

Mt. Airy, N. C.—A. H. Patton, one of the company interested, writes the Manufacturers' Record that a narrow-gauge railroad, twenty miles long, is now being constructed from Mt. Airy to timber land on the Dan river in Patrick county, Virginia. It is calculated to have the road completed about September 1.

Murfreesboro, Tenn.—It is reported that the Tennessee Eastern & Western Railroad Co. has been organized by the election of Edwin Wood of Murfreesboro as president, and George D. Wood, secretary. This is the line which it is proposed to build from Memphis to Knoxville, a distance of 255 miles.

Natchez, Miss.—The plan to extend the New Orleans & Northwestern Railroad to Little Rock, it is reported, has been revived, and representatives of the company have been conferring with Little Rock business men with this end in view. The road is now in operation from Natchez to Bastrop, La., a distance of 130 miles. Louis K. Hyde of Titusville, Pa., is one of the principal owners of the road.

New Orleans, La.—The New Orleans & Northeastern Railroad Co. is reported as having purchased forty miles of 75-pound rails to be placed on its line between New Orleans and Meridian, Miss.

Offerman, Ga.—John J. McDonough, one of the promoters of the Offerman & Western Railroad, writes the Manufacturers' Record that this line will be built from Offerman to Nicolls in Coffee county, a distance of forty miles. The line will connect with the Plant system at Offerman. The Southern Pine Co. of Savannah, Ga., is understood to be interested in the road. Mr. McDonough may also be addressed at Savannah.

Owensboro, Ky.—Meetings are being held by the business men of Owensboro and Calhoun in the interest of the proposed electric railroad between these towns, a distance of seventeen miles. Among the principal promoters are John B. Fredd of Denver, Col., and J. W. Carter of Owensboro. Right of way has been secured for most of the road.

Palmer, W. Va.—The Holly River & Addison Railroad Co. has completed about twenty-four miles of line. It is proposed to complete the road to Addison during the present year. George A. Hechmer of Palmer is general manager.

Petersburg, W. Va.—A correspondent of the Manufacturers' Record writes that Samuel M. Manifold of York, Pa., is one of the promoters of the South Potomac Railroad to be built from Romney to Franklin, a distance of sixty-five miles.

Pine Bluff, Ark.—The railroad to be built from Pine Bluff to Sheridan in the interest of the Sawyer & Austin Lumber Co. will be operated by the Pine Bluff & Western Railroad Co., recently organized with \$250,000 capital. The company includes W. E. Sawyer of La Crosse, Wis., and W. H. Langford of Pine Bluff. Contracts have been let.

Port Royal, S. C.—The Charleston & Western Carolina Railroad is making surveys for a branch line which will extend to a point near the Port Royal naval station. The estimated length is six miles. This is a branch of the Atlantic Coast Line, of which John R. Kenly, at Wilmington, N. C., is general manager.

Rosedale, Miss.—It is reported that the Rosedale & Mississippi Valley Railroad has been purchased by the Illinois Central Company and that a standard-gauge line will be constructed from Rosedale to a connection with the Central. The present line is about six miles long, extending between Rosedale and Phalla, Miss.

Sabine Pass, Texas.—It is announced that Kountze Bros., bankers of New York, have decided to build a railroad from coal lands which they own at Shady Point, Texas, to a connection with the Kansas City, Pittsburg & Gulf system.

Sabine Pass, Texas.—It is reported that Kountze Bros., bankers of New York, who are largely interested in Sabine Pass, are negotiating with the receivers of the Kansas City, Pittsburg & Gulf Railroad to extend this line from Port Arthur to Sabine Pass.

St. Stevens, Ala.—P. L. Bowling is constructing a railroad line through timber tracts near the Tombigbee river.

Tellico Plains, Tenn.—Cyril F. Herford, one of the promoters of the railroad between Tellico Plains and Murphy, N. C., writes the Manufacturers' Record that this line will be about twenty-six miles long. It is understood that the road will be built during the coming year. It will reach property of the Tellico Mining Co.

Velasco, Texas.—It is announced that the Velasco Suburban & Belt Railroad, recently referred to in the Manufacturers' Record, is independent of the Velasco Terminal Railroad. The belt railroad is now under construction.

Warfield, Ky.—Messrs. Spanard, Goodman & Cohen of Ironton, Ohio, are constructing a tramroad, about six miles long, for carrying lumber from the country near Warfield to the Tug river.

Welch, W. Va.—The Iaeger & Southern Railroad Co. has completed five miles of its proposed line, which is to extend from Iaeger to Jacob's Fork, W. Va., a distance of twenty-six miles. William D. Janey, at Welch, is chief engineer of the company.

#### Street Railways.

Atlanta, Ga.—The Atlanta Railway & Power Co., which succeeds the Consolidated Railway Co., has asked for a franchise to extend its electric line to Brookwood in the suburbs. Joel Hurt is president of the company.

Kansas City, Mo.—Messrs. E. E. Meyer & Co. have secured a contract for changing the Westside Railroad into a trolley line. The work will include the laying of new rails. This line is a branch of the Metropolitan Street Railway Co.'s system.

Lexington, Ky.—It is announced that the Lexington Street Railway Co. has decided to begin work upon its extension in the suburbs immediately.

New Orleans, La.—The street railroad on Henry Clay avenue is to be rebuilt and may possibly be extended. It is controlled by the New Orleans City Railway Co.

Wheeling, W. Va.—John S. Welty and Samuel H. Harper of Wheeling are interested in a company which proposes building an electric line in the city and suburbs. It is to be entitled the Wheeling, Wellsburg & Lazearville Railroad Co.

#### Machinery, Proposals and Supplies Wanted.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.**

Air Pump.—See "Tank Cars."

Belting.—See "Saw Mill."

Belting.—See "Fertilizer Machinery."

Belting.—See "Saw and Planing Mill."

Boiler and Engine.—See "Saw and Planing Mill."

Boiler and Engine.—Patrick & Campbell, Newborn, Ga., will need an engine and boiler to run two 60-saw gins with suction outfit, about thirty to fifty horse-power (second-hand preferred).

Boiler, Engines, etc.—See "Mining Equipment."

Boiler and Engine.—See "Water Works."

Boilers, etc.—Sealed proposals will be received at the office of the city register until July 19, addressed to the board of awards, care of J. Frank Supplee, register, Baltimore, Md., for constructing two 125-horse-power boilers, a new stack, also for excavation and brickwork. Plans and specifications on file at office trustees of the poor, Bayview Asylum, Baltimore. A certified check for 10 per cent. of the amount of contract, made payable to mayor and city council, must accompany each bid; usual rights reserved. J. E. Dorsey, purveyor.

Bridge.—Commissioner's court of Navarro county will receive sealed proposals to construct a bridge over the Trinity river at Akers Ferry, connecting the counties of Navarro and Henderson. The court wants proposals, with plans and specifications, upon the steel truss bridge and steel cable bridge, and desires to select from different makes of bridges the one to be erected. Proposals will be received up to July 10 and can be handed or sent to the clerk of court. Any further information desired will be furnished upon application. J. H. Galbreath, clerk county court, Corsicana, Navarro county, Texas.

Cotton Mill.—See "Textile Machinery."

Creamery Separator.—See "Plating Outfit."

Electric-light Plant.—Complete specifications and data of machinery wanted for the construction of the proposed electric-light plant at Monroe, N. C., will be furnished on application to S. B. Bundy, secretary-treasurer.

Electric-light Plant.—Selma Oil & Fertilizer Co., Selma, N. C., is in the market for an electric-light plant for its works; also wants estimates on the additional cost to put in lights for the town.

Elevators.—Rich & Biederman, No. 1928 Second avenue, Birmingham, Ala., want to purchase one freight and one passenger elevator.

Fertilizer Machinery.—Selma Oil & Fertilizer Co., Selma, N. C., is in the market for fertilizer mixer and belting.

Foundry Equipment.—See "Machine Tools."

Furniture.—Southern Manufacturing Co., Newport News, Va., wants prices on church furniture, altar chairs, etc., suitable for synagogue.

Gas Plant.—B. S. German, Raleigh, N. C., will need some new material for the gas works.

Grist Mill.—See "Saw Mill."

Heating Apparatus.—Rich & Biederman, No. 1928 Second avenue, Birmingham, Ala., want to purchase steam-heating apparatus.

Ice Machinery.—M. E. Fahy, 400 Common street, New Orleans, La., wants prices on a second-hand three and five-ton ice machine complete.

Irrigation Plant.—Alvin Produce Co., Alvin, Texas, wants prices on plant for irrigating 100 acres; wants to correspond with manufacturers of steam-power plants and wind-power, also gasoline.

Leather.—F. Kuhn & Co., 65 and 66 Basinghall street, London, England, want addresses of manufacturers of raw leather.

Machine Tools.—Pass City Foundry & Machine Co., T. H. Tracy, president, P. O. Box 176, El Paso, Texas, is in the market for one 42-inch lathe and fourteen feet between centers, one 26-inch lathe and fourteen feet between centers, one 60-inch radial drill, one 72-inch upright boring mill, one medium-size universal milling machine, one bolt cutter to cut to two inches, one planer 32x32x10 feet, one keyseater (Davis preferred), eighty feet 2 7-16 inch shafting, ten 2 7-16 hangers, 18-inch drop; one 36x15 feet between centers lathe; will also want several chucks and a number of small tools and equipment, such as drills, twist, etc.

Mattress Machinery.—Peninsula Flour & Feed Co., Arthur Connell, manager, Newport News, Va., wants to correspond with manufacturers of mattress machinery for hacking shucks, etc.

Mining Construction.—The Macdonald Colliery Co., Macdonald, W. Va., wants bids on sinking two coal shafts.

Mining Machinery.—Chippewa Copper Mining Co., F. A. Woodward, secretary-treasurer, Boston, Mass., will purchase

about \$3500 worth of machinery for development of copper mines.

Mining Equipment.—Fork Ridge Coal & Coke Co., Middlesborough, Ky., wants bids on two shaking screens, with boiler, engines, etc., for one.

Motor Carriages.—Louisville Carriage Co., John E. Roche, president, Louisville, Ky., will probably want to purchase motor vehicles.

Needle Manufacturers.—Alpheus Fields, Gilmerton, Va., wants to correspond with manufacturers of sewing needles.

Paper-making Machines.—F. Kuhn & Co., 65 and 66 Basinghall street, London, England, want addresses of manufacturers of paper-making machines.

Peanut-cleaning Machinery.—William Bragaw & Co., Washington, N. C., desire quotations on peanut-cleaning machinery and apparatus.

Piping, etc.—Sealed proposals for cast-iron water pipe, etc., will be received until July 12 for furnishing and delivering to water board of Baltimore city f. o. b. Baltimore such cast-iron water pipe and special pipe fittings (for pipe of more than twelve inches in diameter) and other special castings as it may require during the balance of the year 1899. There will be required about 2200 tons of cast-iron water pipe and special fittings, the pipe to be from one and one-half to forty-eight inches in diameter, inclusive, and the special fittings will consist of reducers, three-way and four-way branches, bends, etc., for pipe over twelve inches in diameter. Specifications and drawings for the materials to be furnished may be obtained at office of chief engineer. All proposals must be accompanied by certified check for \$1000, made payable to mayor and city council; usual rights reserved; William L. Kenly, chief engineer water department, Baltimore, Md.

Plating Outfit.—P. M. Wilkerson Drug Co., Marion, Ala., wants to purchase a cream separator and electric silver-plating outfit.

Printing Machines.—F. Kuhn & Co., 65 and 66 Basinghall street, London, England, want addresses of manufacturers of printing machines.

Printing Outfit.—Ed F. Grace, editor and general manager United Labor Journal, Memphis, Tenn., will probably purchase linotype machines, presses, paper cutters, etc., which will require steam engine or motor-power, shaftings, etc.

Printing Press and Outfit.—W. W. Bays, Lebanon, Va., wants prices on second-hand cylinder or roller printing press suitable for printing a six or seven column newspaper; also on fonts of type and all other fixtures.

Pulleys.—See "Saw and Planing Mill."

Pump.—E. M. Hodges, Kinston, N. C., wants to purchase a second-hand pump, either belt or steam driven, 200 gallons capacity.

Pump.—The S. Dessau Company, 9 and 11 Gill Building, New York, N. Y., wants to buy a second-hand No. 7 pump (Cameron).

Pump.—See "Water Works."

Railway Equipment.—Empire Lumber Co., F. W. Vetter, manager, No. 1142 Seneca street, Buffalo, N. Y., is in the market for railroad outfit, including engines, logging cars and 35 or 40-pound relaying rails.

Railway Equipment.—See "Tank Cars."

Railway Equipment.—Cape Fear Lumber Co., John A. Arringdale, manager, Wilmington, N. C., is in the market for 30-pound steel relaying rails.

Railway Construction.—Proposals will be received until August 31 by general superintendent and chief engineer of the Vera Cruz & Pacific Railroad Co., Cordova, Vera Cruz, Mexico, for clearing and grubbing, grading, masonry, tracklaying, telegraph line, steel-bridge construction and pile and timber trestling necessary to construct about 200 kilometers of standard-gauge railroad; work will be let as a whole or in sections of fifty kilometers. Plans and specifications can be seen at office of general superintendent and chief engineer. Work is to be begun not later than October 31, 1899, and to be finished on or before June 30, 1900.

Rope Machinery.—See "Textile Machinery."

Saw and Planing Mill.—A. K. Worthy, Williamsburg, Miss., wants belting, pulleys and fittings for engine and boiler and saw mill, planer weighing 400 to 500 pounds, exhaust fan to convey shavings off, etc.

Saw Mill.—R. S. Walker, Abshers, N. C., wants prices on belting, grist mill and small capacity saw and shingle mills of light weight (to be operated by water-power).



Saw Mill.—W. E. Handy, Ink, N. C., wants to purchase new or second-hand saw mill, dresser and matcher.

Saw-mill Machinery.—C. W. Kennon & Co., Tampa, Fla., are in the market for saw-mill machinery.

Screens.—See "Mining Equipment."

Sheet Metal.—Feeser & Bell, 74 Park street, Cumberland, Md., desire samples and bids on brass sheet metal.

Stave-mill Machinery.—W. A. Pedigo, Roanoke, Va., wants to purchase stave-mill machinery with capacity for cutting 20,000 staves per day.

Tank Cars.—Louisville Cotton Oil Co., Room 46, American National Bank Building, Louisville, Ky., is in the market for second-hand tank cars and a second-hand air pump 18x20x20.

Textile.—See "Webbing."

Textile Machinery.—B. M. Johnson, Greenville, Miss., wants full particulars regarding cotton-ropes and yarn machinery, cost of outfit, etc.

Water Works.—Complete specifications and data of machinery wanted for the proposed water-works system at Monroe, N. C., will be furnished on application to S. B. Bundy, secretary-treasurer.

Water Works.—W. P. Garretson, general manager West Virginia Construction Co., Montgomery, W. Va., will need about 6000 feet of eight-inch main, 4000 feet four-inch pipe, two tanks of 100,000 gallons each, boiler, engine and pump.

Water Works.—Sealed proposals will be received by Mayor W. D. Humphries of

Columbus, Miss., until July 20 for constructing a system of water works and furnishing materials for same; work will embrace ten miles of pipe, standpipe, filtration plant and other appurtenances. Plans and specifications will be on file and may be seen at office of H. M. Waddell, city clerk, and copies of specifications, forms, etc., may be obtained from city clerk; usual rights reserved; J. L. Ludlow, engineer, Winston, N. C.

Water-works Supplies.—Luling Water Works, John Orchard, superintendent, Luling, Texas, wants to purchase a six-inch meter and fittings for supply pipes, hose, etc.

Webbing.—Feeser & Bell, 74 Park street, Cumberland, Md., want samples and bids on elastic webbing seven-sixteenths inch wide.

Woodworking Machinery.—See "Saw Mill."

Woodworking Machinery.—M. L. Hollowell, New Berne, N. C., wants to correspond with manufacturers of machinery for making sash, doors, blinds, balusters, table legs, etc.; also with jobbers who handle same.

Woodworking Machinery.—J. E. Caldwell, Dublin, Va., will probably be in the market for stave and heading machinery.

Woodworking Machinery.—Wisconsin Machinery Co., 125 W. Water street, Milwaukee, Wis., is in the market for a machine to manufacture file handles.

Woodworking Machinery.—Buena Vista Hardwood Co., Buena Vista, Va., wants lathe for turning trenails or locust ship pins for rough and smooth turning.

effect that the Kilbourne & Jacobs Manufacturing Co. and the Jeffrey Manufacturing Co. have purchased property for additions to their respective plants.

A dispatch from Superior, Wis., is to the effect that the Chicago, St. Paul, Minneapolis & Omaha Railway Co. has decided to construct an elevator in that city which will hold 1,000,000 bushels.

The Manhattan Railway Co. of New York has purchased a site for its proposed power-house, which, it is understood, will be one of the largest in this country. Geo. J. Gould is president of the company.

James W. Waterbury is president of the New York Steel & Wire Co., which proposes building a plant at Astoria, Long Island, for making wire rope. The offices are 69 South street, Long Island City.

The Vermont Light & Power Co. is about to let contracts for a dam across the Black river which will be fifty-eight feet long. It is calculated to develop 1000 horse-power at this point. The company may be addressed at Cavendish, Vt.

A dispatch from Jeffersonville, Ind., is to the effect that the Alsen Cement Co. may construct branch works near Jeffersonville. Messrs. Corbett & Sinclair of 143 Liberty street, New York, are agents for the company and are looking over the ground.

J. W. Marsh, vice-president of the Standard Underground Cable Co., writes the Manufacturers' Record that it is contemplating the erection of new factories in the eastern part of the country. The company's offices are in the Westinghouse Building at Pittsburgh.

Contracts have been let for the depot of the Pittsburg & Lake Erie Railroad Co. at Pittsburg, Pa., with the exception of the heating apparatus and power-house. An electric plant will be installed. J. A. Atwood is chief engineer. The improvements will cost \$400,000.

The plan to build an electric railroad and docks at Newtown Creek, in the suburbs of New York city, has reached a point where it is reported plans have been prepared for a freight depot which will cost over \$1,000,000. Lowell M. Palmer, president of the Palmer's Dock Co. of Brooklyn, is reported as interested in the matter.

## TRADE NOTES.

Wolf Flour Mills.—The Farina Flour Mills Co. of Raleigh, N. C., has awarded contract to the Aug. Wolf Co. of Chambersburg, Pa., for the installation of gyrator system equipment in its flour mill.

Manganese Ore Deposits.—An immense deposit of manganese ore that has been discovered lately is offered for sale or lease by Mr. A. D. Reynolds of Bristol, Tenn. The property is less than two miles from railroad.

"Little Gem" Rosettes.—These rosettes are manufactured by Pass & Seymour of Syracuse, and their popularity is increasing daily. The caps will not jar loose, loose contact is impossible, they do not heat (for they have ample carrying capacity) and they meet underwriters' requirements. Mr. Joseph M. Zamolski of 515 Equitable Building, Baltimore, Md., is Southern sales agent for these rosettes, and for prices write him.

Supplying Flouring Machinery South.—Many new flour mills are constantly being contracted for to be built in the South, also there are many established mills of this class that improve and enlarge their plants from time to time. A large furnisher of machinery for new and enlarging flour mills throughout the country is the Nordyke & Marmon Co. of Indianapolis, Ind., and it receives many of its orders from the South. Recent contracts placed with the company include 125-barrel, 60-barrel, 50-barrel and 30-barrel mills complete; also a considerable lot of miscellaneous milling machinery; also corn-mill machinery. The swing-sifter system of the Nordyke & Marmon Co. is continually increasing its prestige with the millers of experience, who recognize superiority when they see it.

An Improved Cotton Opener.—Textile manufacturers will find of interest the accompanying test of a new and improved cotton opener made at experimental shop recently. In just one hour 2300 pounds of raw cotton stock were taken out of bales and run through this opener and delivered on apron of another machine. Stock was delivered in a light open manner, with no trace of lumps or bunches, and no injury to the staple in the least. A short description of this opener may be interesting. Stock is thrown into an unusually large

hopper. An endless apron in bottom of hopper carries the stock up to vertical upright pinned apron; the latter carries the stock up to adjusting revolving self-cleaning doffer, which combs surplus stock back into hopper. A four-wing doffer in rear of machine delivers the stock from the apron. Capacity of the opener varies, according to the adjustment on the revolving doffer. This doffer feeds evenly, without selecting stock, combing apart all lumps and bunches. The teeth in doffer project while in contact with the pinned apron and recede or withdraw themselves upon leaving apron, and are thus self-cleaning. The machine is strong and durable, and built to do heavy work and lots of it. It is manufactured by the Atlas Manufacturing Co. of Newark, New Jersey.

A Unique Industry.—The Union Boiler Tube Cleaner Co. of 237 Penn avenue, Pittsburgh, Pa., was organized for the purpose of introducing an entirely new industry—that of removing scale from the interior of the tubes of water-tube boilers. It is today claiming to be the only concern of the kind having machinery especially designed for its specific business, patented abroad and in this country, by which it is enabled to safely contract for thoroughly cleaning boilers under a time limit, with bond for heavy penalty for non-fulfillment, or to sell or lease tools for cleaning all makes of water-tube boilers having straight, horizontally-inclined or vertical tubes and those having curved tubes, also having closed-end tubes, the latter three types being heretofore considered, and without this company's devices are claimed as yet, impossible to clean. The Union Company commenced business May 1, 1895, a time of the greatest depression in industries, notwithstanding which the great merits of the devices caused their immediate adoption by the largest concerns in the United States and England. Their value as a fuel-saving device as well as one that increases the efficiency of boilers even when practically new, if not entirely so, was such as to call forth the highest meed of praise from users, and such is the continued demand that, notwithstanding, the factory is constantly being enlarged. The company's flexible shaft is unique, having been designed to accomplish the cleaning of boilers having curved or other tube inaccessible for a stiff rod, owing to the fact that other shafts would not stand the wear and tear under great stress.

Fireplace Grates.—The "cozy corner" has come to be one of the most indispensable of comforts in our newer houses of the dwelling class. The open fireplace is usually the leading question in equipping such "corners." Superior fireplace grates, embodying the advantages of home comfort, health, artistic decoration and economy in operation, should be examined by those interested. Such grates will be found described and illustrated in the pamphlet of the Dobbie Foundry & Machine Co. of Niagara Falls, N. Y., which manufactures the Hayes fireplace. Ask for catalogue No. 6.

Arrest Them!—One of the most important supplies in the machinery line is packing, and "Rainbow" packing has been widely used for some years. The manufacturer of this packing, the Peerless Rubber Manufacturing Co. of 16 Warren street, New York, has lately become cognizant of imitations of its products, and has issued a large leaflet relative to same. The leaflet shows a handsome colored picture of the "brownies" holding an engineering contest. The product of the Peerless Company includes "Eclipse" sectional rainbow gasket, "Peerless" piston and valve rod packing, "Hercules" combination metallic stop-valve packing, "Honest John" hydraulic rainbow core packing and "Zero" packing for ammonia.

M. L. Caldwell and associates are organizing a company at New Berne, N. C., with a capital of \$8000, for the manufacture of sash, doors, blinds, balustrades, etc.

## Atlantic City Horse Show via Pennsylvania Railroad.

The first exhibition of the Atlantic City Horse Show Association will be held at Inlet Park, Atlantic City, on July 13, 14 and 15, 1899. Liberal prizes guarantee a large number of entries and a high class of exhibits, and a carefully-prepared programme promises abundant entertainment. This popular event will serve to still further increase the attractions of this great seashore resort. Excursion tickets to Atlantic City and return will be sold by the Pennsylvania Railroad from all stations on its line.

## GENERAL INDUSTRIAL NEWS.

The Eclipse Foundry Co., at Belleville, Ill., is erecting works at a cost of \$10,000.

E. D. Wetmore of Warren, Pa., is interested in a proposed foundry to be built at Erie, Pa.

William Penny and others have formed the Penny Coal Mining Co., which will operate at Edwardsville, Ill.

The new foundry to be built by Messrs. Taylor & Sons at Springfield, Ohio, will be 70x250 feet in dimensions.

W. J. Reno of Minneapolis, Minn., and others have formed the Minnesota Tank Co. to manufacture these specialties.

The Karg Oil & Gas Co. of Cincinnati has been organized to bore for oil and gas, and will utilize machinery for pumping.

Fred A. Holland of Lima, Ohio, is interested in the Lima Plaster Co., recently incorporated with \$1,000,000 capital stock.

It is reported that the recent increase in capital of the Illinois Wire Co. of Sycamore, Ill., is for the purpose of enlarging its plant.

It is reported that the American Beet Sugar Construction Co. of New York is considering the erection of a plant at Newark, N. J.

A. J. Dodd of Lincoln, Neb., is interested in the Eureka Fire Escape Co. to manufacture this specialty with \$50,000 capital stock.

Albert A. Wilcox of Paterson, N. J., is a director in the People's Brewing Co., recently incorporated with \$1,000,000 capital stock.

There is a possibility that a steam-shovel works will be located at New Castle, Ind., by Grant Wiggins of Richmond, Ind., and others.

Jacob C. Sotter has been elected president of the Sotter Boiler Co., recently incorporated at Pottstown, Pa., and capitalized at \$50,000.

R. H. Davis of Palmyra N. Y., and others have formed the Peerless Printing Co. to manufacture printing presses, and capitalized at \$35,000.

The Cartwright Pottery Co. of East Liverpool, Ohio, will probably erect an addition to its works to cost \$40,000 on property recently purchased.

It is reported that the McCormick Harvester Co. of Chicago has purchased two pieces of property for the proposed additions to its plant.

An addition will be built to the foundry and machine works of Alexander Adamson at Akron, Ohio, which it is stated will be 50x100 feet in size.

The Kennedy Valve Manufacturing Co. at Coxsackie, N. Y., it is understood, has decided to erect several additions to its plant at a cost of \$15,000.

E. Muerer of Toronto, Ont., is reported as interested in the proposed paper mill to be built at Muskegon, Mich., at a cost of \$300,

000. It will have a daily capacity of twenty tons.

C. T. Westlake is interested in the American Railway Grader & Ditcher Co., which will manufacture railroad-construction machinery at Granite, Ill.

The Pine Iron Works Co. of Pine Iron Works, Pa., may double its present works by erecting blast furnaces. Joseph Bailey is treasurer of the company.

It is reported that the Carl Prussing Cement Co. has purchased land near La Salle, Ill., for the erection of works which it is calculated will cost \$250,000.

It is reported that the Patchogue Lace Co. of Patchogue, L. I., has purchased ground for an addition to its plant. E. D. Einstein is president of the company.

Edward C. Smith of Glenside, Pa., may be addressed relative to the Philadelphia Rotary Tower Co., which will manufacture this apparatus, with \$50,000 capital stock.

Contracts have been let for the machine shop to be added to the plant of the Fosdick & Holloway Machine Co. at Cincinnati, Ohio. It will be 239x97 feet in dimensions.

Frank McCann and C. A. Muehlbrunner of Pittsburg are interested in a company recently formed to manufacture oleomargarine in that city. A building has been secured.

The American Shipbuilding Co. at Lorain, Ohio, it is reported, has let contracts for additions to its machine shop; storeroom, also for additional machinery for its power-house.

It is announced that Messrs. Ryan & Richardson have determined to erect a cold-storage plant at Leavenworth, Kan., on three acres of ground which they have recently purchased.

Messrs. Thomas Halton's Sons of Philadelphia advise the Manufacturers' Record that their textile mill will be four stories high and 130x54 feet in size. Contracts have been let.

The Chippewa Copper Mining Co., located near Brule township, Wis., has arranged to build the necessary buildings. T. A. Woodward, secretary, may be addressed at Boston, Mass.

C. A. Newcomb of Detroit, Mich., is interested in the Peninsular Cement Co., which will erect works, it is reported, at Jackson, Mich. This company is capitalized at \$370,000.

The Overman & Schrader Cordage Co. of Cincinnati will employ about 1000 spindles for manufacturing flax and other goods. The improvements being made aggregate \$100,000 in value.

There is a possibility that a plant for manufacturing looms for silk mills and other machinery will be built at Allentown, Pa., by a company which includes Isaac A. Hall of Paterson, N. J.

A dispatch from Columbus, Ohio, is to the



## FINANCIAL NEWS.

## New Corporations.

R. A. Lewis and others have organized the Bank of Belton, S. C., with \$50,000 capital.

O. H. Anderson of Gainesboro, Ala., is interested in a proposed bank at Lafayette, Ala.

A branch of the Cabarrus Savings Bank of Concord, N. C., is being organized at Albemarle, N. C.

The Provident Savings Bank of Baltimore has purchased property for a branch in the northern part of the city.

The Queenstown Savings Bank at Queenstown, Md., has elected Charles Cockey, president, and O. Tilghman, cashier.

The Merchants & Manufacturers' Investment Co. has been formed at St. Louis, with \$600,000 capital stock, by Otto F. Stifle and others.

The Piedmont Savings Bank, recently organized at Winston, N. C., has elected J. T. Brown, president; O. B. Eaton, vice-president, and L. W. Pegram, cashier.

The National Indemnity & Insurance Co. of Baltimore has been formed for the purpose of insuring persons from loss occasioned by disease. G. W. Lurman is president; Samuel R. Barr, vice-president, and J. B. Hall, general agent. The company will be capitalized at \$100,000, with a surplus of \$50,000.

## New Securities.

The town clerk may be addressed relative to the issue of \$10,000 in warrants to be sold by Jasper, Ala.

Local investors have taken \$250,000 worth of New Orleans drainage bonds at premiums ranging from 1 per cent. upward.

The town of Plaquemine, La., has voted in favor of issuing \$38,000 in bonds for improvements. The mayor may be addressed.

The town of Berryville, Va., has voted in favor of issuing \$20,000 in bonds for various purposes. The town clerk may be addressed.

The town of Rockingham, N. C., will probably place on the market soon an issue of \$15,000 in 6 per cent. bonds for improvements.

The town of Apalachicola, Fla., is about to vote on the question of issuing bonds for water-works purposes. Address the mayor.

The town of Fort Gaines, Ga., will probably place on the market in the near future an issue of \$20,000 in 5 per cent. refunding bonds.

The city of Birmingham, Ala., is prepared to sell \$45,000 in 6 per cent. bonds for improvements. The mayor will give further information.

The city council of Denton, Texas, has approved an issue of \$20,000 worth of 4 per cent. refunding bonds. The mayor will give further particulars.

The city of Durham, N. C., has sold its issue of \$16,000 in 5 per cent. bonds to Messrs. Denison, Prior & Co. of Cleveland, Ohio, at a premium of \$528.

The issue of \$100,000 in improvement bonds of Mobile, Ala., to be dated July 1, is a part of the issue of \$750,000 sold to Sperry, Jones & Co. of Baltimore.

Elizabeth City, N. C., will open sealed bids July 15 for all or any part of \$10,000 to \$20,000 5 per cent. bonds of \$100 each, issued for street improvements. Address the mayor.

The issue of \$30,000 in bonds to be placed on the market by the city of Knoxville, Tenn., will be utilized to construct a hospital. The mayor will give further information.

The city authorities of Charlotte, N. C., are considering a further issue of school

bonds to the extent of \$100,000 if authorized by the legislature. The mayor will give further information.

Joseph G. Brown will receive bids until July 15 for the issue of \$100,000 in 4 per cent. bonds of Raleigh, N. C. The school district of Raleigh will also issue \$50,000 in 5 per cent. bonds in the near future. The chairman of the school board may be addressed at Raleigh.

## Dividends and Interest.

The following dividends have been announced by Southern banking and other corporations:

Atlanta, Ga.—Lowry Banking Co., 4 per cent. semi-annual.

Augusta, Ga.—Planters' Loan and Savings Bank, 3½ per cent. semi-annual; National Exchange Bank, \$3 per share semi-annual; National Bank of Augusta, \$3.50 per share semi-annual.

Baltimore, Md.—Merchants' National Bank, 3 per cent. semi-annual; American National Bank, 2½ per cent. semi-annual; National Bank of Baltimore, 4 per cent. semi-annual; Commercial and Farmers' National Bank, 3 per cent. semi-annual; Manufacturers' National Bank, 2 per cent. semi-annual; Western National Bank, 4 per cent. semi-annual; Drovers and Mechanics' National Bank, 3 per cent. semi-annual; German-American Bank, 2½ per cent. semi-annual; German Bank of Baltimore, 2½ per cent. semi-annual; Continental National Bank, 2 per cent. semi-annual; Canton National Bank, 2 per cent. semi-annual; National Union Bank, 2 per cent. semi-annual; National Bank of Commerce, 2½ per cent. semi-annual; People's Bank, 2 per cent. semi-annual; National Mechanics' Bank, 5 per cent. semi-annual; National Howard Bank, 2½ per cent.; Maryland Fire Insurance Co., 3 per cent. semi-annual; Peabody Fire Insurance Co., 2½ per cent. semi-annual; Knickerbocker Ice Co., 1½ per cent. quarterly; American Bonding Co., 3 per cent. semi-annual; Progressive Loan Association, 3½ per cent. semi-annual; National Exchange Bank, 3 per cent. semi-annual.

Berryville, Va.—Bank of Clarke County, 3 per cent. semi-annual.

Charleston, S. C.—South Carolina Loan Co., \$3 per share; Miners and Merchants' Bank, 3 per cent. semi-annual; People's National Bank, \$5 per share; First National Bank, 6 per cent. semi-annual; Bank of Charleston, 6 per cent. semi-annual; Hibernia Savings Bank, \$5 per share; Dime Savings Bank, \$5 per share.

Columbia, S. C.—Columbia Loan Association, 8 and 6 per cent. annual; Richland Cotton Mills, 3½ per cent. semi-annual; Granby Cotton Mills, 3½ per cent. semi-annual.

Columbus, Ga.—Columbus Savings & Loan Association, 8 and 6 per cent. annual; Columbus National Bank, \$4 per share semi-annual; Merchants and Mechanics' Bank, 3 per cent.

Eufaula, Ala.—Eufaula Cotton Mills Co., 3 per cent. semi-annual.

Galveston, Texas.—First National Bank, 3 per cent. semi-annual; Texas Land & Loan Co., 2 per cent.; Texas Trust Co., 3 per cent. semi-annual; Citizens' Loan Co., 2½ per cent. semi-annual.

Knoxville, Tenn.—Mechanics' National Bank, 5 per cent.

Little Rock, Ark.—German National Bank, 5 per cent. semi-annual.

Louisville, Ky.—Louisville Banking Co., 3 per cent. semi-annual; Louisville Trust Co., ½ per cent. quarterly; Columbia Trust Co., 1½ per cent. quarterly; Louisville Cotton Mills Co., 3 per cent. semi-annual and 3 per cent. extra dividend; Third National Bank, 3 per cent. semi-annual; National Loan Association, 3 per cent. semi-annual; Union National Bank, 3 per cent. semi-annual; Western Bank, 2 per cent. semi-annual; Kentucky Title Co., 3 per cent. semi-annual; Bank of Commerce, 5 per cent. semi-annual; German Insurance Co., 3 per cent. semi-annual; German Insurance Bank, 5 per cent. semi-annual; American National Bank, 3 per cent. semi-annual; Western Insurance Co., 4 per cent. semi-annual; German Security Bank, 3 per cent. semi-annual; Louisville National Bank, 3 per cent. semi-annual.

Macon, Ga.—American National Bank, 3 per cent. semi-annual; Exchange Bank, 3 per cent. semi-annual.

Montgomery, Ala.—Merchants and Planters' National Bank, 4 per cent. semi-annual; First National Bank, 3 per cent. semi-annual; Farley National Bank, 3 per cent. semi-annual; Bank of Montgomery, 3 per cent. semi-annual.

New Orleans, La.—State National Bank, \$3 per share semi-annual; Teutonia Insurance Co., 5 per cent. semi-annual; Hibernia

National Bank, \$5 per share semi-annual; Germania National Bank, \$3 per share semi-annual; Germania Savings Bank, \$8 per share semi-annual; New Orleans Gaslight Co., \$2.50 per share; Louisiana National Bank, \$4 per share semi-annual; Canal Bank, \$3 per share; New Orleans National Bank, \$15 per share; New Orleans City Railroad Co., 2½ per cent.; Metropolitan Bank, 4 per cent. semi-annual; People's Bank, 3 per cent. semi-annual; Whitney National Bank, 7½ per cent. semi-annual; Southern Insurance Co., 4 per cent. semi-annual; Union National Bank, \$3 per share.

Newport News, Va.—The Newport News & Old Point Railway & Electric Co., 2½ per cent. semi-annual on preferred stock; Cottrell Loan Co., 3 per cent. semi-annual.

Norfolk, Va.—Citizens' Bank, 3 per cent. semi-annual; Merchants and Mechanics' Bank, 3 per cent. semi-annual.

Palmetto, Ga.—Palmetto Cotton Mills, 6 per cent. annual.

Portsmouth, Va.—Merchants and Farmers' Bank, 5 per cent. semi-annual.

Richmond, Va.—City Bank, 3 per cent. semi-annual; Old Dominion Loan Association, 3 per cent. semi-annual; United Banking & Trust Co., semi-annual; Virginia State Insurance Co., 3 per cent. semi-annual; Home Building Co., 2½ per cent. semi-annual; American Home Loan Association, semi-annual; Savings Bank of Richmond, 3 per cent. semi-annual; Merchants & Mechanics' Building Fund Co., 3½ per cent. semi-annual; First National Bank, 4 per cent. semi-annual; Commercial Building and Loan Association, 3 and 3½ per cent. semi-annual; Realty Investment Co., 3½ per cent. semi-annual; Virginia-Carolina Chemical Co., 2 per cent. quarterly; Guarantee Loan & Trust Co., 2 per cent. semi-annual; German-American Banking & Building Co., 3 per cent. semi-annual; Old Dominion Steamship Co., 3 per cent. semi-annual; Virginia Building & Loan Co., 3 per cent. semi-annual; Union Bank, \$3 per share semi-annual.

San Antonio, Texas.—Loan & Deposit Co., 8 and 6 per cent. annual.

Savannah, Ga.—Southern Bank, 3½ per cent. semi-annual; Chatham Improvement Co., \$1.50 per share; National Bank of Savannah, \$3.50 per share semi-annual; Southwestern Railroad Co., \$2.50 per share; Augusta & Savannah Railroad Co., \$2.50 per share.

Shelbyville, Tenn.—Farmers' Bank, 5 per cent. annual and 3½ per cent. added to surplus.

St. Louis, Mo.—Breman Bank, \$6 per share; Jefferson Bank, \$3 per share semi-annual; Northwestern Savings Bank, 4 per cent. semi-annual.

Wheeling, W. Va.—Commercial Bank, 3 per cent. semi-annual.

Woodstock, Va.—Shenandoah Loan Association, 21½ per cent. annual.

A semi-annual dividend of \$3 a share has been declared on the stock of the George's Creek Coal & Iron Co.

Interest payments include the following at Baltimore: On the Baltimore, Catonsville and Ellicott's Mills, 5 per cent. bonds; on the first mortgage 6 per cent. bonds of the Central Railway Co.; on the Baltimore Traction collateral trust 5s; Georgia, Carolina & Northern 1st 5s; Georgia Southern & Florida 1st 5s; Seaboard & Roanoke Railroad 1st 5s; Raleigh & Augusta Railroad 1st 6s; Raleigh & Gaston 1st 5s; Atlanta Consolidated Street Railway 1st 5s; Norfolk Street Railroad 1st 5s; Charleston City Railway of South Carolina 1st 5s; Baltimore & Ohio Car Trust 6s; Aberdeen & West End Railroad 1st 6s; Town of Wytheville (Va.) Electric 6s; Columbus (Ga.) Water Works Co. 5s; Monticello Distilling Co. 1st 6s; College of Physicians and Surgeons 5s; Salisbury Water Co. 5s; National Brewing Co. 1st 6s; City of Raleigh (N. C.) 5s; City of Radford (Va.) 6s; Shreveport Gas, Electric Light & Power Co. 1st 7s; George W. Collier Mortgage 6s; City of Asheville (N. C.) 5 per cent. Market bonds; City of Asheville (N. C.) 5 per cent. Sewerage bonds; City of Asheville (N. C.) Street Improvement bonds; City of Asheville (N. C.) 5 per cent. School bonds; City of Asheville (N. C.) 6s; City of Charlottesville (Va.) 5s; City of Petersburg (Va.) 5s; Belt Railway of Chattanooga 1st 3s; City of Staunton (Va.) 5s; Evening News Building Co. 1st 5s.

## Financial Notes.

George R. Reeves has been elected president of the Bank of Mullins, S. C.

The Petersburg Loan Co. of Petersburg, Va., has determined to engage in banking business, and will open a department for this purpose.

The Jacksonville Loan & Improvement Co. of Jacksonville, Fla., has determined

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to change its name to the Jacksonville Loan & Insurance Co., and will do a general banking business.

The last statement of the Merchants and Farmers' Bank of Marion, S. C., states that its capital stock is \$50,000 and its surplus and undivided profits nearly \$19,000, or over one-third of its capital.

Mr. Wesley M. Oler has been elected president of the Citizens' National Bank of Baltimore, succeeding Hon. James A. Gary. Mr. Oler has been a director of the bank for nearly ten years, and has acted as vice-president for the last two years.

The banking business heretofore transacted in New York and Boston under the title of Poor & Greenough will after July 1 be conducted in both cities under the firm name of H. W. Poor & Co. The partners are the same as before, there being no change except in the title of the firms.



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CAPITAL, - - \$1,500,000.00  
 SURPLUS, - - - 1,500,000.00

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Acts as Financial Agent for States, Cities, Towns, Railroads and other Corporations. Transacts a general trust business. Lends money on approved security. Allows interest on special deposits. Acts as Trustee under Mortgages, Assignments and Deeds of Trust; as Agent for the Transfer or Registration of Stocks and Bonds, and for the payment of coupons, interest and dividends.

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CAPITAL, \$200,000. SURPLUS, \$40,000.  
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Acts as Fiscal Agent for the payment of Bonds, Coupons, Dividends, etc., of States, Municipalities, Railroads and other Corporations; as Trustee under Mortgages or Deeds of Trust securing issues of Bonds, and as Registrar and Transfer Agent of Stocks and Bonds; as Trustee of Estates and Individuals; as Administrator, Executor, Guardian and Receiver.  
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**The Baltimore Trust & Guarantee Co.**

CAPITAL.....\$1,000,000  
 SURPLUS.....\$1,900,000

Corner Calvert and Fayette Sts.  
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Rents Safe Deposit Boxes in its Fire and Burglar Proof Vaults.  
 Pays Interest on Deposits Subject to Check.  
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 Acts as Executor, Administrator, Trustee, Guardian, etc.; also, as Trustee under Mortgages. Transfer Agent and Registrar of Stocks and Bonds.  
 Trusts of every description will be faithfully executed. Income, Rents, Dividends, Collected and promptly accounted for.  
 The Baltimore Trust and Guarantee Company offers to the public the advantages of a large capital specially invested by the requirements of its charter, and a perpetual succession.

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N. W. cor. Light and German Sts.  
 BALTIMORE, MD.

Capital.....\$2,000,000  
 Surplus.....500,000

Transacts a General Banking and Trust Business.

Acts as Fiscal Agent for Cities and Corporations; as Trustee of Mortgages of Railroads and other Corporations, and as Registrar and Transfer Agent of Stock.  
 Acts as Executor, Administrator, Guardian or Trustee of Estates.  
 Is a legal depository for court and trust funds. Allows interest on deposits and makes loans on approved security.

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OF MARYLAND.

CAPITAL - - - \$3,000,000  
 SURPLUS - - - 1,500,000

Acts as Financial Agent for States, Cities, Towns, Railroads and other Corporations. Transacts a general trust business. Lends money on approved security. Allows interest on special deposits. Acts as trustee under Mortgages, Assignments and Deeds of Trusts; as Agent for the Transfer or Registration of Stocks and Bonds, and for the payment of coupons, interest and dividends.

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 This company is a Legal Depository for funds in the hands of Trustees or Administrators, and allows interest on same pending distribution.  
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ACTS as Trustee of Mortgages of Corporations and accepts Transfer Agency and Registry of Stocks.

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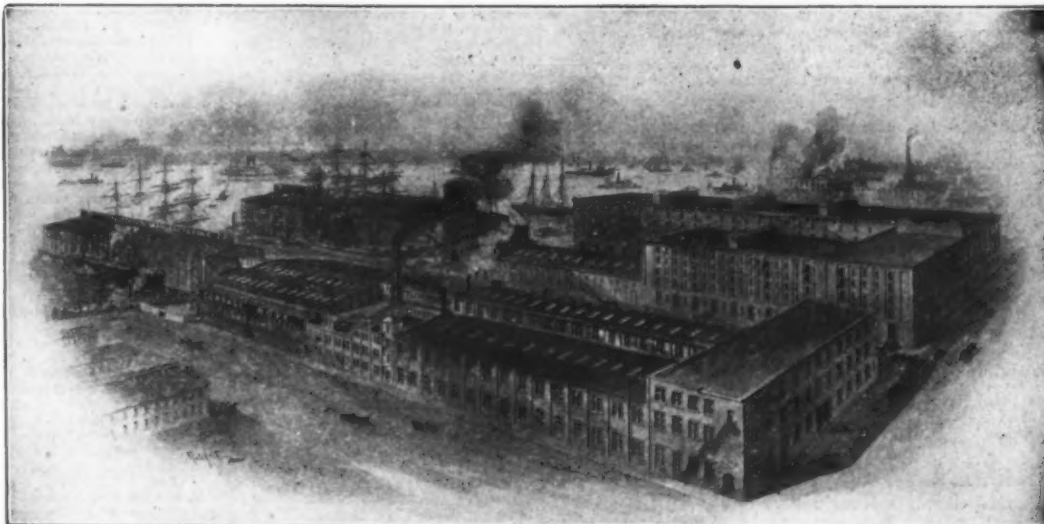
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Smith, & Co..... 37	Whitnville Spinning Ring Co..... 42	Whitmer, Wm., & Sons, Incorp. 34	Whitney, Baxter D..... 32	Wilkinson Mfg. Co..... 19	Williams Bros..... 47	Williams, F. V..... 29	Williams, John L., & Sons..... 25	Wilson, F. Cortez, & Co..... 8	Wilson Laundry Machinery Co. 4	Wisconsin Mch. Co..... 30	Wolf, The, Co..... 24	Wolf, Fred, W., Co..... 19	Wood, Alan, Co..... 6	Wood, R. D., & Co..... 47	Wood, W. Dewees, Co..... 24	Woods, T. B., Sons..... 21	Wormer, C. C., Mch. Co..... 30	Worthington, Henry R..... 24	Wrightsville Hardware Co..... 49	X. Y. Z..... 28	York Mfg. Co..... 19	Y. ing a folk, here lily tion.

Ads. marked thus \* appear every other week.  
Ads. marked thus † appear in first issue of each month.  
Ads. marked thus ‡ not in this issue.



## PROPOSALS.

## Notice to Architects.

The City of Columbia, S. C., will receive until Monday, July 10th, at 12 M., preliminary designs for a City Hall. The architect whose plan is adopted will be employed for full professional services, including supervision at 5 per cent. of the cost of the building, but the city reserves the right to reject any or all plans, and rejected plans will be returned to their owners without compensation.

The building will occupy the lot on the north-west corner of Main and Washington streets, measuring 105 feet on Main and 130 feet on Washington. This lot is already excavated to a depth of 8 feet over its entire area. The building is to be set back from the lot lines on all sides, so as to give it a monumental character, and it is to have a prominent Clock Tower.

The building to be three stories, as follows:  
First Floor—Offices must be provided for Mayor, Treasurer, Auditor and City Engineer. The former must have a Fireproof Vault. Also provide one Committee Room and three offices, yet to be assigned.

Second Floor—Provide City Council Chamber and small Public Library.

Third Floor—Public Hall with seating capacity of 500. Toilet rooms are to be provided on first floor.

Police Headquarters are to be provided at the rear of the building, and be separated from the main building by a dead wall. They are to be two stories high and to consist of a general room, a private office for the Chief, a Court Room, a Stable for two patrol horses and wagon, and a Lock up with 12 Steel Cells, and the necessary toilets.

The entire building is to be heated by a central plant, either warm air, steam or hot water.

The entire cost of the building complete, including heating and plumbing and cells, is not to exceed \$25,000.

Each architect entering the competition must submit a plan of each floor, two street elevations, and one section, drawn to a scale of one-eighth of an inch to one foot, with black ink, on white paper. A perspective may also be submitted if desired. An outline specification and itemized estimate must also be submitted.

Address all communications to

T. T. TALLEY,  
City Treasurer.

Columbia, S. C.

SEALED PROPOSALS will be received by the Charleston Consolidated Railway, Gas & Electric Company, until 12 o'clock noon, Saturday, July 15, 1899, for furnishing during a period of one year, commencing August 1, 1899, eight thousand tons (8000) of gas coal, and ten thousand (10,000) tons of steam coal, more or less, in accordance with specifications, to be had on application to the office of the General Manager, Charleston, S. C. Shipments to be made as coal is ordered. Bids will be accepted

Rail and water, f. o. b. port of shipment.

Rail and water, f. o. b. Charleston.

All rail, f. o. b. Charleston, or all rail, or rail and water, at option of shipper, f. o. b. Charleston.

Shipments of 3000 tons steam and gas will be ordered at one time if desired. Payments to be made monthly on amount of coal used preceding current month. Bids must be accompanied by a certified check for \$1000.

Right is reserved to reject any or all bids.

NICHOLAS S. HILL, Jr., Gen. Mgr.

## FRANCHISE FOR SALE.

The City Council of Lancaster, Ky., will receive sealed proposals for the franchise for putting in water works plant up to 10 o'clock A. M. July 22d, 1899. Water to be furnished from Dix River, 2½ miles distant. The city will contract for 40 and 50 fire plugs for term of 20 years, and reserves the right to reject any and all bids, and also reserves the right to purchase plant in 5, 10 or 20 years, as it sees proper. Specifications on file in Mayor's Office, Lancaster, Ky.

J. C. THOMPSON,  
J. E. STORNES,  
Commissioners.

## Notice, Bridge Builders.

Builders of iron bridges are invited to survey two sites on the Connemut River, distance from Brewton 2½ and 9 miles, and submit to the Commissioners' Court, July 17th, plans and specifications, together with sealed bids; erection of same payable in county warrants, 1, 2, 3 and 4 years, or cash. The Court reserves the right to reject any or all bids without compensation for charges for plans and specifications.

N. R. LEIGH, Judge of Probate.  
Escambia County, Brewton, Ala.

## BOND ISSUE.

SEALED BIDS will be received by James G. Covington, Mayor, Monroe, N. C., until 12 o'clock, noon, July 20, 1899, on thirty thousand dollars 5 per cent. water and electric light bonds, interest payable annually, running 30 years, straight for 10 years, after which one-twentieth redeemable each year. Denomination five hundred dollars. Right reserved to reject any and all bids. Address JAMES G. COVINGTON, Mayor, Monroe, N. C.

## SALE OF CITY BONDS.

SEALED BIDS will be received by Aquilla J. Ketchum, Mayor of Oneonta, Ala., until 12 o'clock noon, July 19, 1899, and then publicly opened, for sale of \$10,000 30 year bonds, bearing 5 per cent. interest, payable semi-annually.

AQUILLA J. KETCHUM, Mayor.

U. S. ENGINEER OFFICE, Norfolk, Va., June 19, 1899.—Sealed proposals for dredging and bank protection in Waterway from Norfolk, Va., to Sounds of N. C., will be received here until 12 o'clock July 21, 1899, and then publicly opened. Information furnished on application. THOS. L. CASEY, Maj., Engrs.

SEALED BIDS will be received up to Monday, July 24, 1899, at 10 o'clock A. M., for a metal case for Circuit Clerk's Office, 14 feet high, 132 inches wide, to contain 102 roller book shelves, 192 Compressing Files. Shelves to be covered with 3 roll curtains. Work to be of finest quality cold rolled steel, in finish and quality equal to other metal work in office and similar in design.

L. T. WALKER, Committee,  
Woodstock, Shenandoah Co., Va.

SALE OF ELIZABETH CITY BONDS.—Sealed bids will be received until 2 o'clock P. M., Saturday, July 15, 1899, for all or any part of \$10,000 to \$20,000 5% bonds of \$100 each, issued by the Corporation of Elizabeth City, N. C., for street improvements. First ten of the series to be paid in two years after issue, and ten every year thereafter until the whole are paid. Interest on the whole amount payable semi-annually. The right is reserved by the City to reject any and all bids. No bids need be below par. By instructions of the Board of Aldermen.

J. L. SAWYER,  
J. B. FLORA,  
T. B. WILSON, } Committee.

"We are the People"

WHO MAKE

Tiemann's  
Soluble  
Laundry  
Blue,

KNOWN ALSO AS

Indigo Wash Blue,

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POISONOUS ACID.

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32 BROADWAY, N. Y. Also Buffalo, N. Y.

Pine and Cypress Timber Lands for Sale,  
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125,000 acres in Florida, choicest timber on, 350,000 acres, for 20 days only; price \$1.00 per acre cash. 16,000 acres choice long leaf yellow pine, in Mississippi, 8,000 to 10,000 feet per acre, convenient to transportation; \$6.25 per acre if sold in 30 days. 15,000 acres on N. O. & N. E. Railroad, 10,000 feet per acre; price \$10.25 per acre if unsold. Large tracts of pine and cypress in Mississippi, Louisiana, Alabama, Florida and Texas. Large tracts of pine will soon be out of the market—increased in price 35 to 50 per cent. The choicest and cheapest white oak trees in Kentucky. This advt. is for buyers only.

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Or for any other purpose requiring great pressure.  
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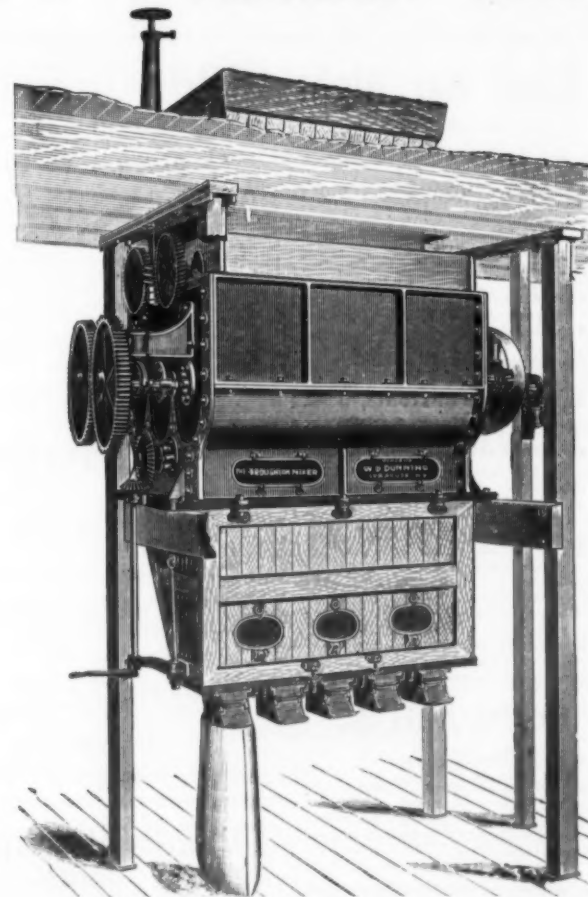
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Agents for Pardee & Curtin Lumber Co.'s  
BAND SAWED POPLAR, ASH, WALNUT, CHERRY, ETC.



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Will find it to His Advantage

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Incomparably the Leading System in the South.

IT RUNS THROUGH Virginia, North Carolina,  
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Permit us to show you what we have to offer.

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Land and Industrial Agent, Southern Railway Co.

Washington, D. C.

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New England and Western States for Sale.

Big income from royalty. One county in North  
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One hundred per cent. profit to manufacturers.  
Salesmen on commission or on lease as agent for  
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Saves 20 per cent. fuel.

Yorkville Roller Mills, Yorkville, S. C.: "They  
are great savers of fuel and give perfect satisfac-  
tion in every particular."

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Particulars on application to

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Under the very liberal laws of West Virginia.  
Cheaper than elsewhere; no personal liability;  
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panies cheaper and better than elsewhere. 100 en-  
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FOR SALE.

Millbury Cotton Mills, Millbury, Mass., about  
13,000 spindles. Machinery in good condition;  
much of it of recent purchase. Steam and water  
power. Fourteen tenements and boarding house.  
For further particulars address TRUSTEE,  
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The whole or a part interest in an old established

### Iron and Brass Jobbing Foundry.

For particulars address

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### IRON ORE LANDS FOR SALE.

To Close a Partnership.

800 Acres of land, lying in Chattooga  
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C. R. & C. R. R., and 4 miles from the Dirt Seller  
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phosphoriferous red ore on the property. Can  
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500,000 tons of ore, and that ore will yield 48 per  
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Price moderate. Terms easy.

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We offer to lease, for a term of years,  
one of the most desirable manufactur-  
ing sites in the South, on river and three  
railroads, consisting of large buildings  
with boiler and engine and ample  
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Excellent location for wood working  
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We have a bed of pebble phosphate that borings  
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OF THE

### Phosphate Mining Co., LIMITED.

Under an order of the United States  
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public auction on the

First Monday in August (7th), 1899,

at the hour of twelve (12) noon, in the  
town of Beaufort, South Carolina, the  
real estate and works of the Phosphate  
Mining Company, Limited, situated  
about a mile and a half from Port  
Royal, S. C., fronting on Battery Creek,  
containing wharves, sheds, switches,  
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loading vessels, together with buildings  
and dwellings. For a full description  
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### A Well-Equipped Foundry and Machine Shop,

Situated in Northwestern part of Geor-  
gia, enjoying a well established business.  
Extensively known in said section and  
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gain. Write for particulars to G. L. C.,  
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Consisting of three falls on the Soque River, in  
Habersham County, Ga., with six hundred acres  
of land, on which is located two factories, one  
for the manufacture of woolen cloth, with twelve  
48-inch cards, and one for spinning cotton, with  
2500 spindles, with a full complement of resi-  
dences, operatives' houses, storehouse, ware-  
rooms, etc.

The combined water power is equal to 2500 H.  
P., the labor native, easily controlled and well  
satisfied. This is one of the most valuable water  
powers in the South, being most easily harnessed  
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summer, and not affected by the floods through  
the winter. Railroad facilities within three miles.  
Property belonging to an estate. Will be sold  
very cheap. For full particulars address  
T. D. MEADOR, President,  
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### A Fine Location for Factories.

I own the survey of a water power at Valentine,  
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deposits of Fuller's earth, analysis showing it to  
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woolen mill (water power), there being 4,000,000  
pounds wool clipped nearby annually, which is  
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Situated in Petersburg, Virginia, and  
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### Cottonseed Oil Mill Location.

This is the center of the cotton producing sec-  
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Water Power, 3750 H. P. and 6200 Spindle  
Cotton Mill.

Under an order of the Superior Court of Oconee  
County, State of Georgia, in the case of Duncan  
et. al vs. Star Thread Company et. al., pending  
in said Court, will be sold at public outcry and to  
the highest bidder, before the Office of the Re-  
ceiver, W. D. Griffith, on College Avenue, in  
Athens, Georgia, between 10 A. M. and 2 P. M.,  
on the 20th day of July, 1899, the following prop-  
erty: A tract of land containing 750 acres, more  
or less, lying in said Oconee County, upon which  
is a magnificent water power of 3750 horse-power  
on the Oconee River, natural dam and fine shoals.  
There is in addition on said property a stone mill  
building sufficiently large for 10,000 spindles, and  
now having 6200 spindles therein, with necessary  
machinery for making skeins, cones and warps  
from eight to sixteen; also 60 new looms and  
all necessary tools and mill supplies. There is  
also on said property 23 good operative cottages.  
The mill now being operated with about 300  
horse-power. The balance of the horse-power  
can be easily and cheaply developed. Property  
situated nine miles from Athens, Georgia, a city  
of 12,000 inhabitants, where there is a demand for  
electric power, and four miles from railroad sta-  
tion. Fine location, and power sufficient to  
increase the plant to 100,000 spindles. 3000 bales  
of cotton per annum can be bought at the mill  
door. Athens cotton receipts average 80,000  
bales per annum. No malaria. Good water.  
Cheap labor. No strikes. Mill making move-  
under receivership. The land well timbered  
with original forest. Terms cash.

Bidder to deposit certified check or cash for  
\$5000 with Commissioner before property is  
knocked off to him, as guaranty that if his bid is  
approved by the Court, that as soon as notified of  
approval of sale by the Court purchase money  
will be paid to the Receiver. Upon failure to  
comply with bid after being notified of approval  
of sale by the Court, check or cash so deposited  
will be forfeited. The bid to be reported to the  
Court for approval or rejection. For further  
information apply to W. D. Griffith, Receiver,  
Athens, Georgia, or to HENRY S. WEST,  
Commissioner, Athens, Ga.

ONE

### Saw and Planing Mill

Complete,

With Dry Kiln, Boilers and  
Machinery

all of modern make and in thorough order. Capa-  
city of Saw Mill: 40,000 ft. daily—Planing Mill:  
20,000 ft. daily. The plant has a frontage of 396 ft.  
on the river, running back to street, 500 feet more  
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which plant is located. The plant is centrally  
located and handy for local trade. Facilities for  
shipping by railroad or by water, on steamers or  
sailing vessels is first-class. Booms for holding  
several million feet of logs and timber. Will sell  
this plant as a whole, or will sell boilers and  
machinery separate from the land. This is a  
good opportunity for anyone wishing to embark  
in the business. Machinery is of the best make  
and comparatively new, and in thorough order

Address Box P. O. 104, Wilmington, N. C.

### FOR SALE—Extensive FACTORY SITE

in SPARTANBURG, S. C., nearly three acres,  
fronting longest side along Southern Railway and  
on street; 300 yards from Union Station. Other  
manufacturing industries immediately adjoining.  
Lot has on one corner Soap Works plant fully  
equipped, with material ready for immediate op-  
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Southern manufacturing section, is known for  
solidity, educational advantages and steady in-  
crease in population and industries, with electri-  
cal railway soon to be completed. Address J. B.  
HENNEMAN, Executor, or ALEX. LONG, Agt.,  
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situated in Georgia, S. C., near the South Caro-  
lina Road. About half of the tract is adapted for  
planting purposes, cotton, rice, corn, potatoes,  
sugar cane and tobacco, balance standing timber,  
within easy reach of Branchville and Borman-  
town. Apply to

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Over 23,000,000 Acres Timber and Mineral  
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60 pp. timber and mineral catalogue free, explains  
Southern timber and mineral lands, location, trans-  
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Colonizers, Real Estate and Loan Brokers,  
323½ Union St., Nashville, Tenn., U. S. A.



## Superior Water-Power Facilities FOR SALE.

The Wateree Canal, seven miles from Camden, S. C., was built by the State of South Carolina in the early part of this century, to convey boats around the rapids in Wateree River, but the building of railroads made the use of the canal unnecessary, and now the State has ceded all the rights in the canal to owners of land through which it passes.

S. Logan Lang has undertaken the utilization of this great property for water power purposes, under survey and recommendations by Mr. Frank Niernsee, an engineer of wide experience, who says in his official report, "That with the building of proper dams a fall of 37½ feet would be obtained, which would give, with river at Government low water mark, a volume of water about 3,465 cu. ft. per second, producing a gross horse power of 14,719.

"We have all the conditions fulfilled on this river of a splendid water power, viz: good drainage area, extensive forests, good volume of flow at low water mark, etc. A together I consider the scheme of development good, and we can obtain a splendid horse-power, capable of being utilized at a reasonable amount of capital, which should realize a good percentage upon investment." This 37½-foot fall is obtained by connecting a series of hills with short dams, making the work a minimum. If a tail race be then cut 14½-foot fall will be added, thus giving 52½-foot fall and 20,700 horse-power.

Wateree Canal, one of the greatest, if not the greatest, power, certainly the easiest of development, in the South, is yet to be developed, and with the favorable natural conditions surrounding it, its successful utilization is assured.

Good upland cotton grows on every farm in the contiguous county. Climate healthful. Land will grow every variety of food. Abundant white help easily obtainable.

Cheap transportation to every part of the globe from the mill door. The Seaboard Air Line, now constructing a road from Cheraw to Columbia, S. C., will place this power on the largest trunk line in the South.

Any further information, including blue print of plan of development as outlined by the engineer, will be furnished by

**S. LOGAN LANG,**  
Camden, S. C.

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## Timber and Coal Land, 2000 ACRES.

This land is in three tracts, one containing 1000 acres, and the other two 500 acres each, well timbered and underlain with three veins of coal, four, six and nine feet. Seven or eight miles from West Virginia Central Railroad. Timber will pay for land. Must be sold soon. A good investment.

For particulars apply to  
F. V. WILLIAMS,  
Or A. W. SEYMOUR, Burlington, W. Va.  
Moorefield, W. Va.

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One T-H. Class 16, 40 k. w.  
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Two 200 light, 16 c.p., 110 volt.  
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The above are second-hand in good condition.

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6000 tons 80, 85, 90, 100 lb. new Tees.  
330 tons 50 lb. Relayers with Angles.  
400 tons 35 lb. Relayers with Angles and Bolts.  
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160 tons 20-25 Relayers. No Splices.

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**Locomotives and Machinery.**

1 9x14" 3' gauge Porter saddle tank locomotive; 1 9x16" 3' gauge Baldwin saddle tank locomotive, repaired and ready for immediate shipment; 1 7x12" 3' gauge saddle tank locomotive; 6 3' gauge 3-yard side dump cars, 1 16x24" standard gauge locomotive with tender; 2 left hand and one centre unloading plow; 1 18" class E Smith-Vaile filter press.

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Shay geared, also saddle tank and regular type, standard and narrow gauges, different weights and very suitable for logging purposes. Locomotives have all been overhauled and are in first-class condition.

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1 14x20 26-ton engine, 4 drivers 61-in, 4-wheel front truck; 1 10x14 16 ton Baldwin, 4 36 in. drivers, pony truck, has 4-wheel tender; 1 9x14 Baldwin saddle tank, 4 drivers; 1 25-ton Porter saddle tank; 6 light passenger coaches; all of the above is standard gauge. In narrow gauge we have: 1 12x18 3-foot gauge saddle tank; 1 7x12 Porter saddle tank; 1 18-ton 3 cylinder Shay; 16 3-foot gauge log cars. Also relay rails of all weights. Write for prices and terms.

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We will sell on easy terms of payment if desired.

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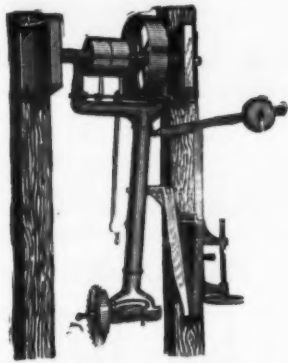
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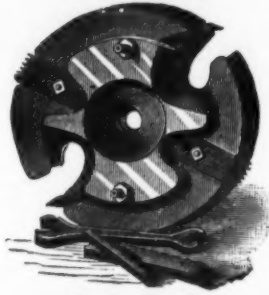
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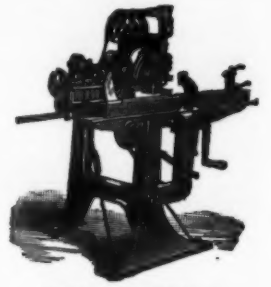
This Head can be used on Parallel  
Swing Saw.



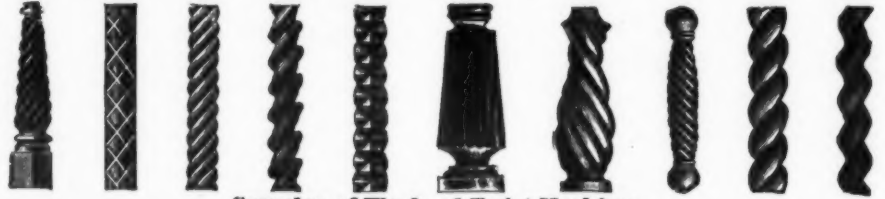
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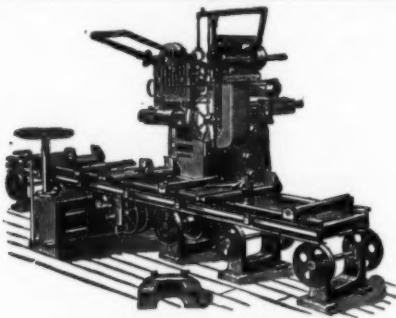
Twist Machine.



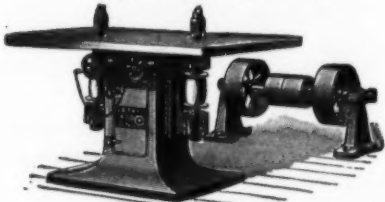
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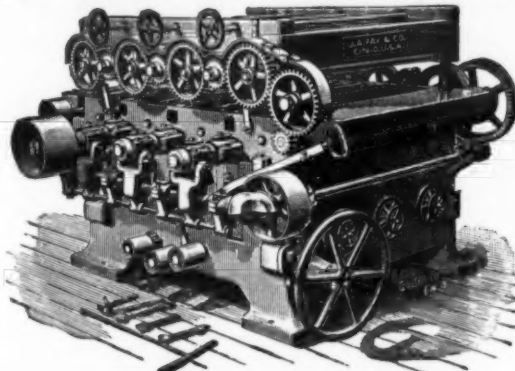


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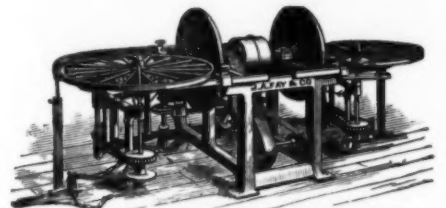


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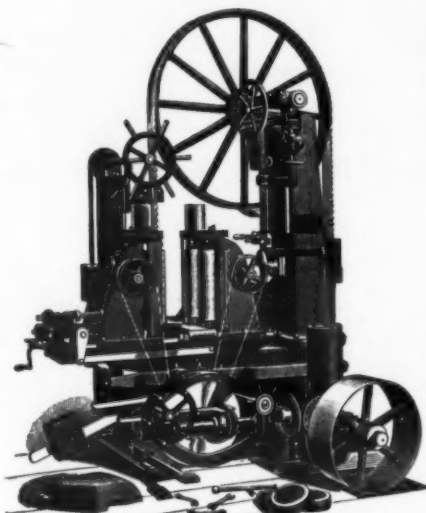
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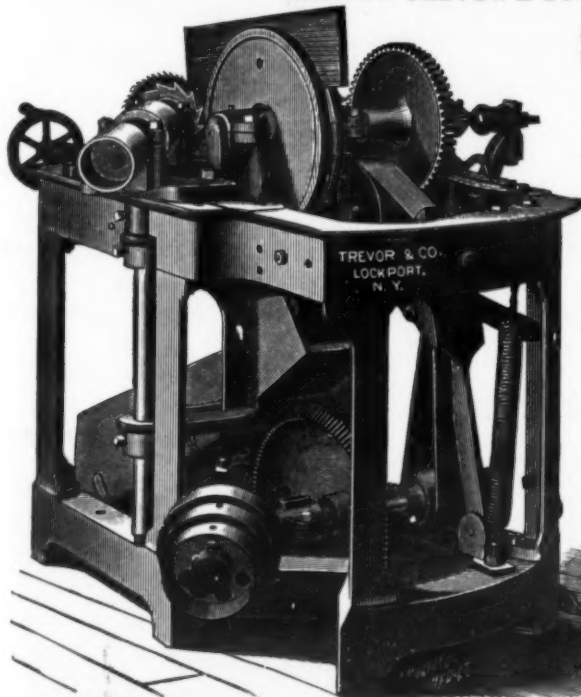
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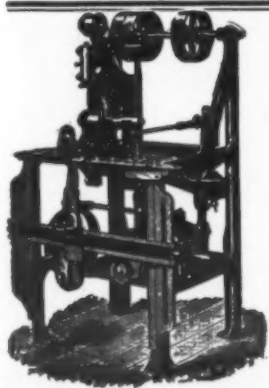
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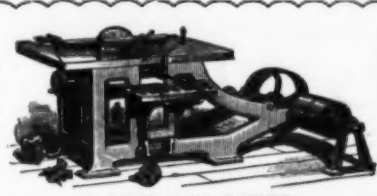


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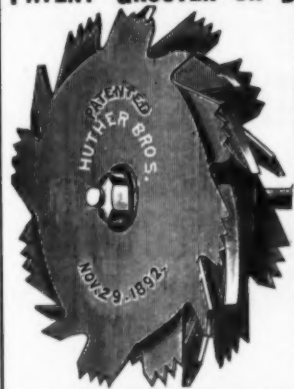
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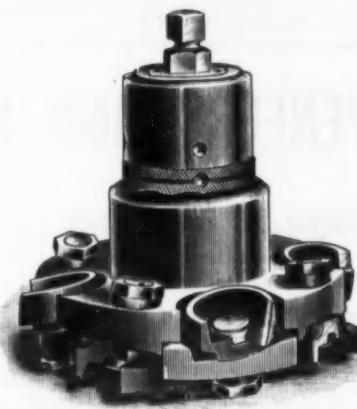


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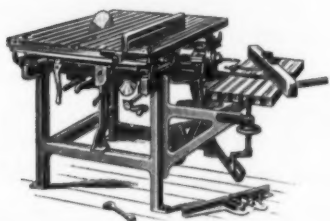
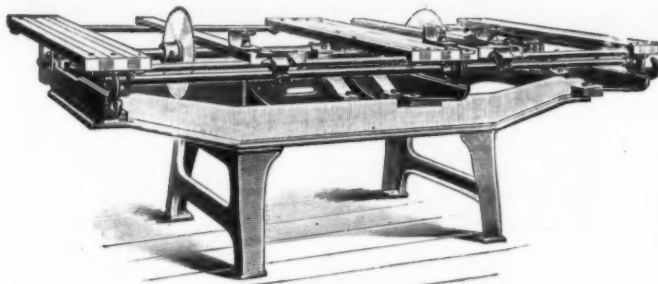
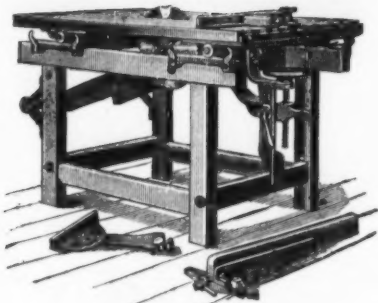
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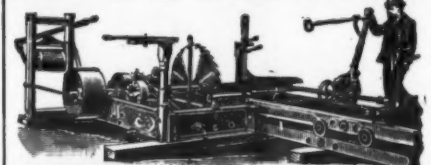
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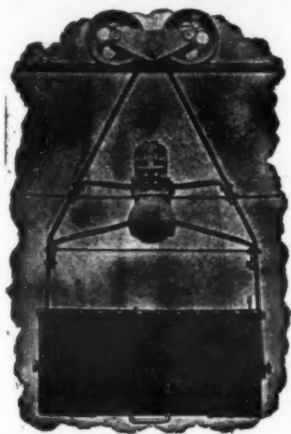
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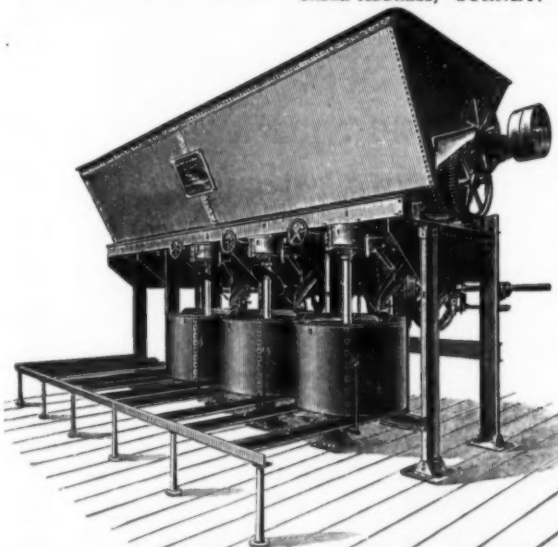
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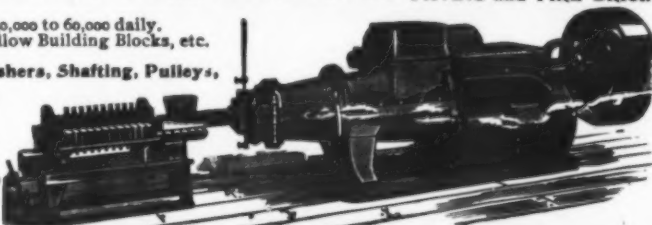
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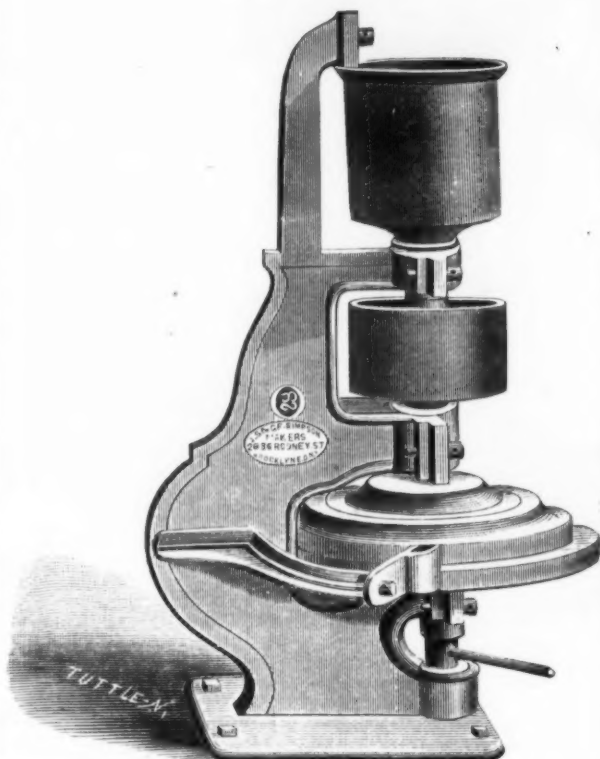
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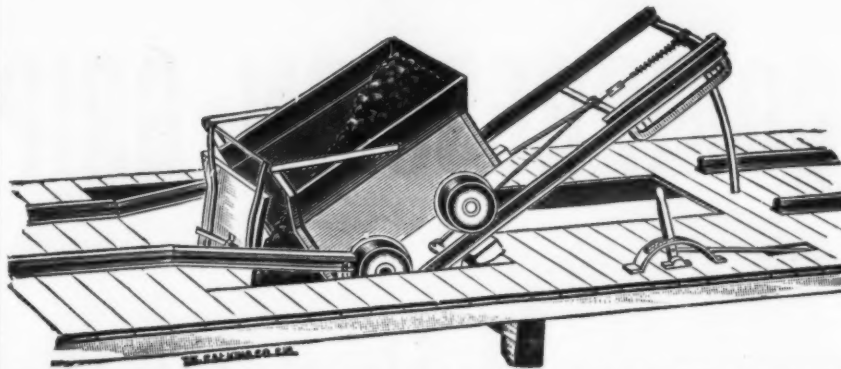
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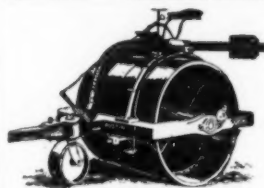
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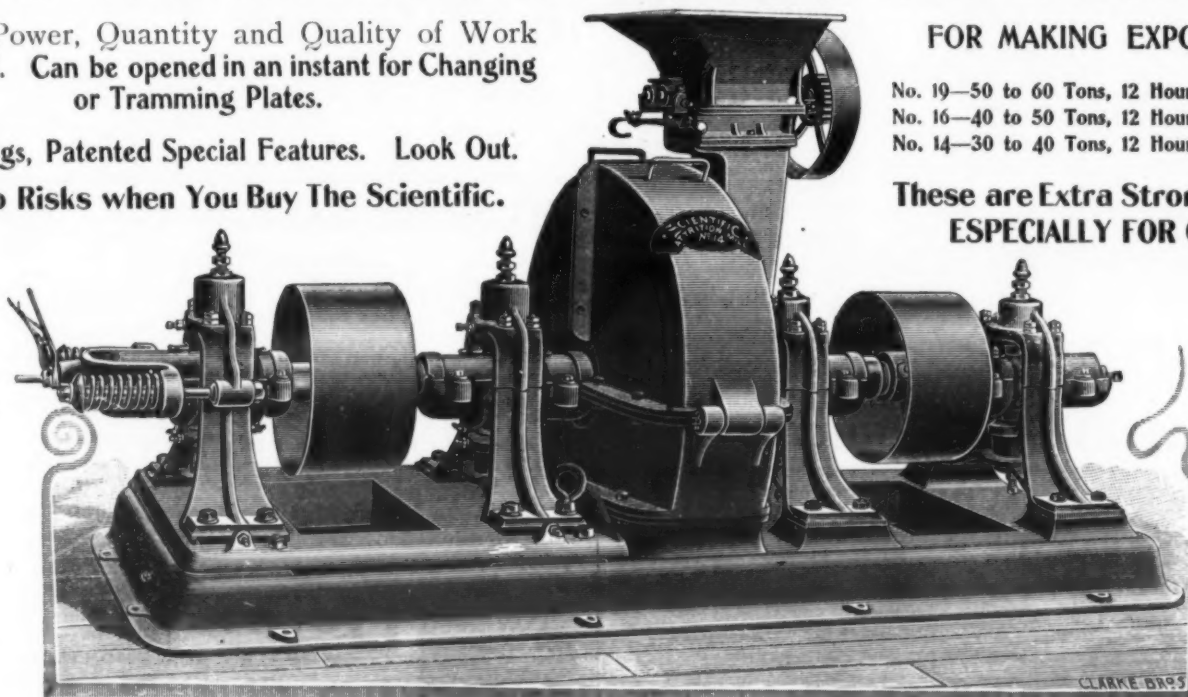
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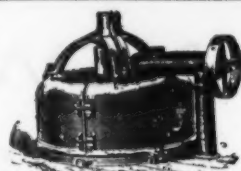


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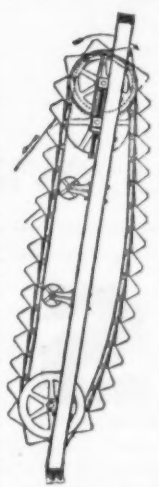
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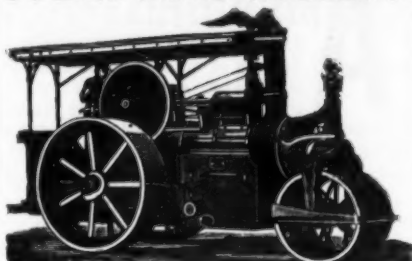
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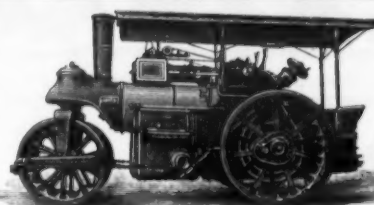
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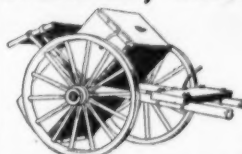
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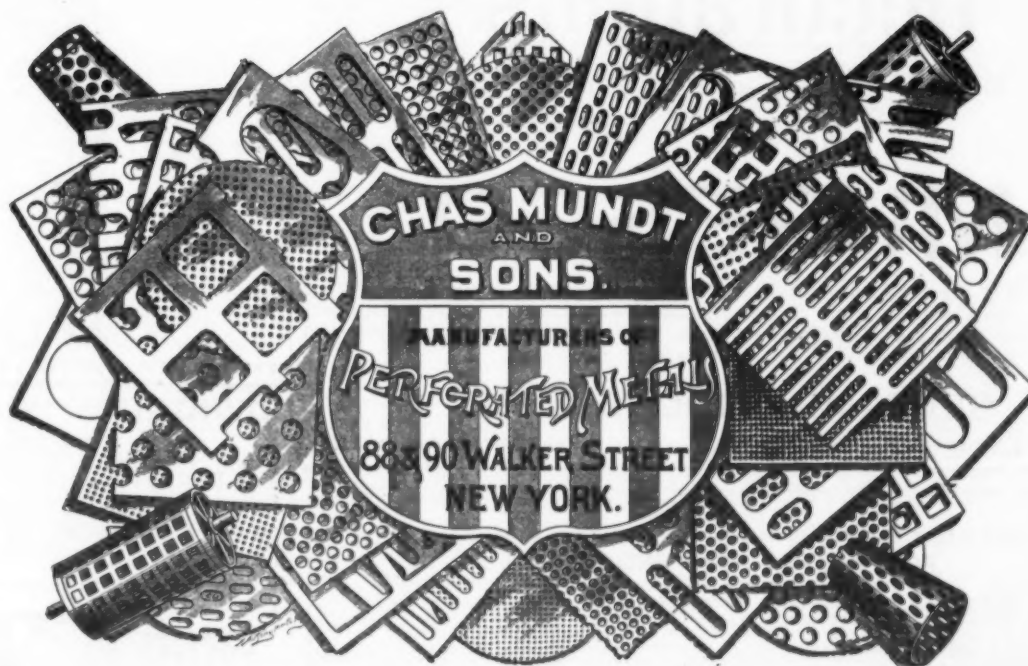
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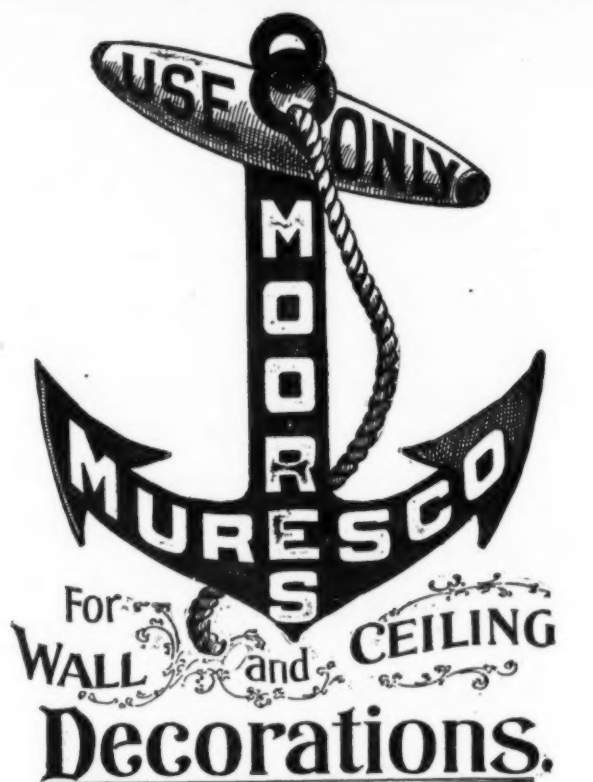
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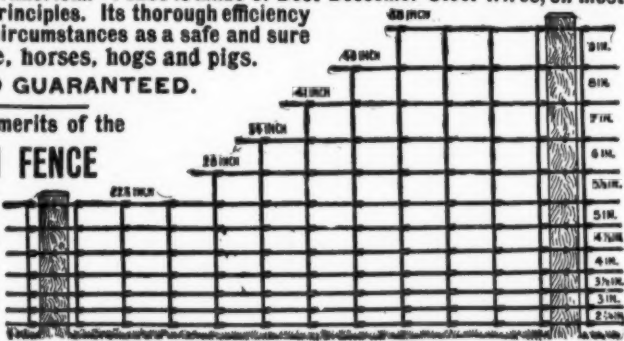
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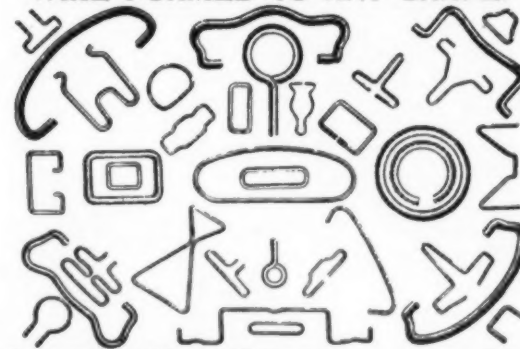
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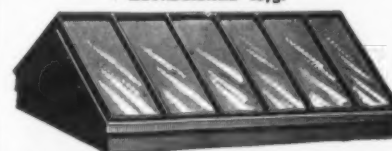
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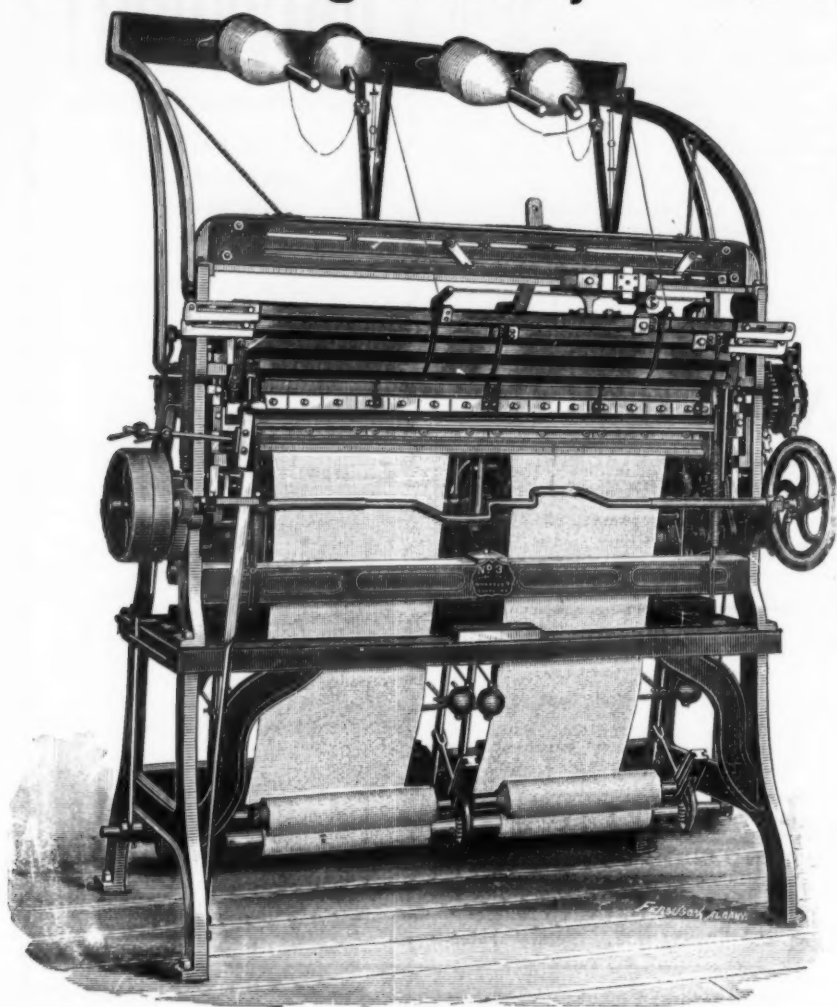
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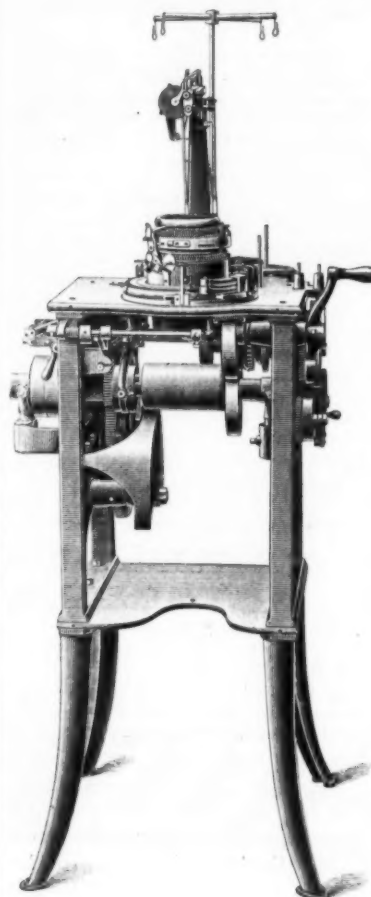
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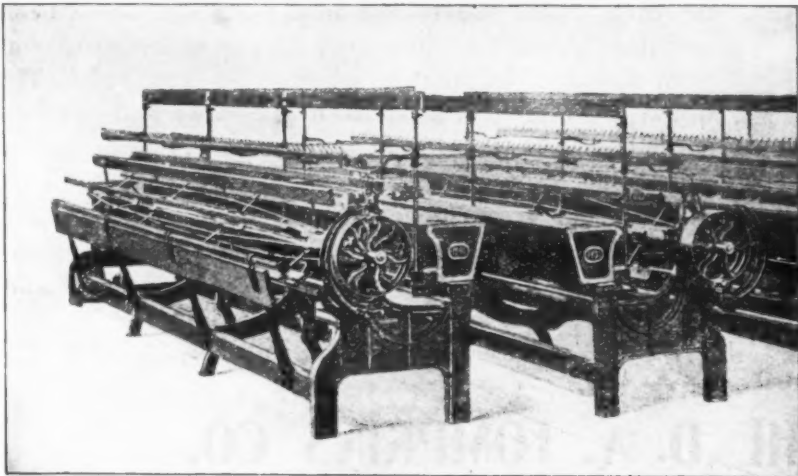


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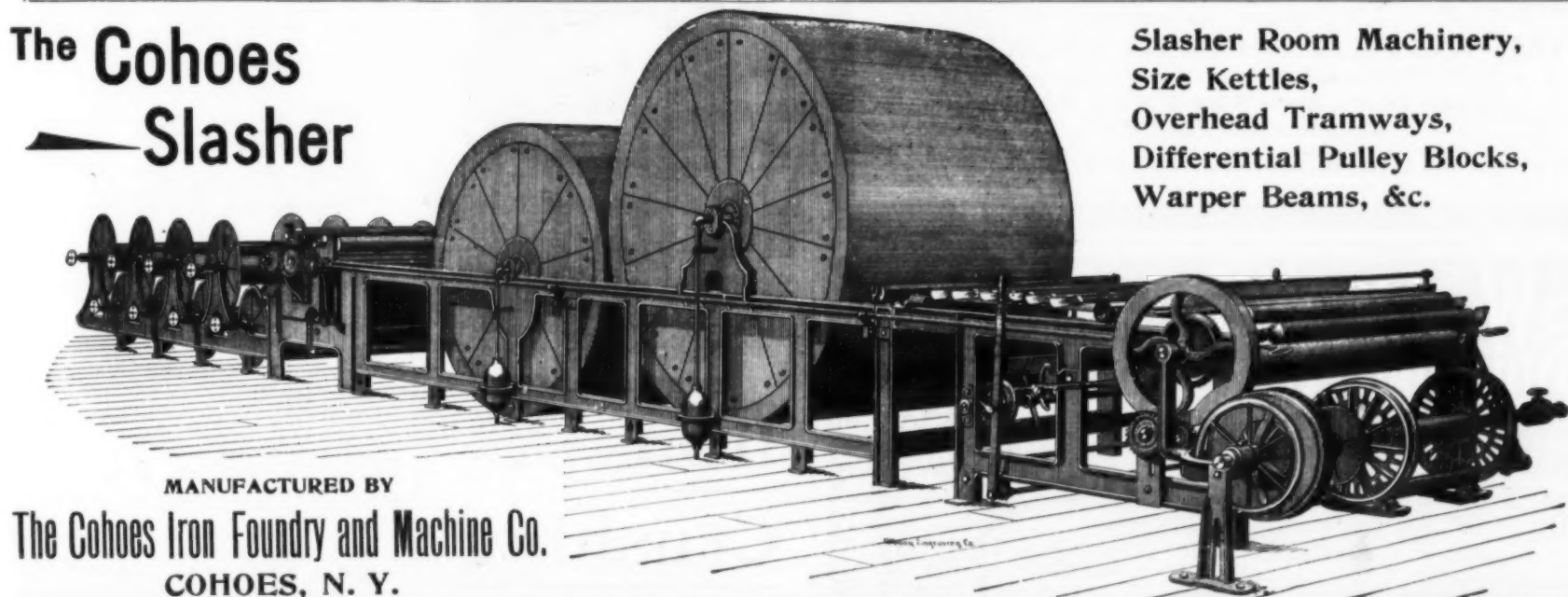
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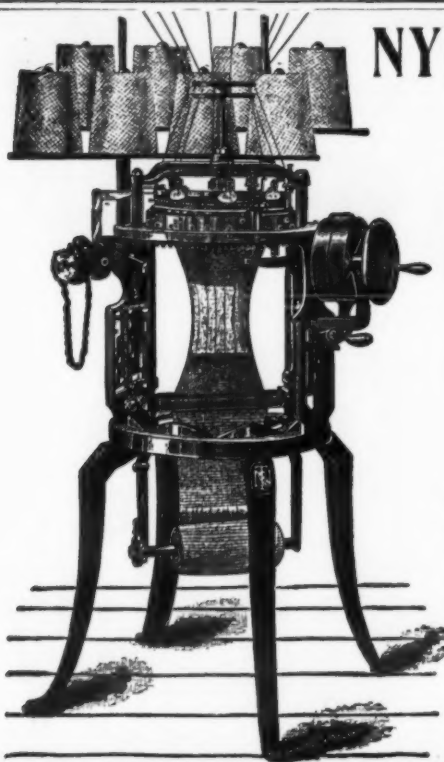
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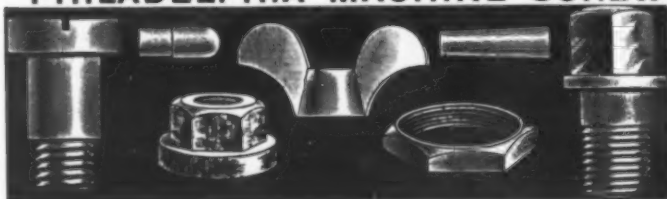
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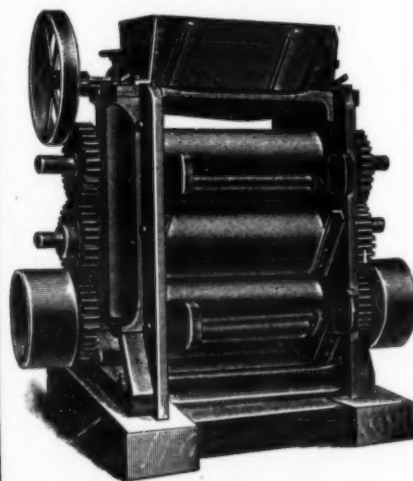
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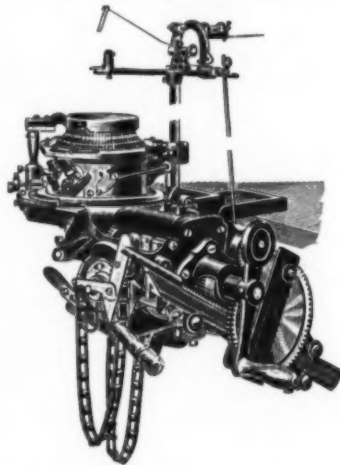
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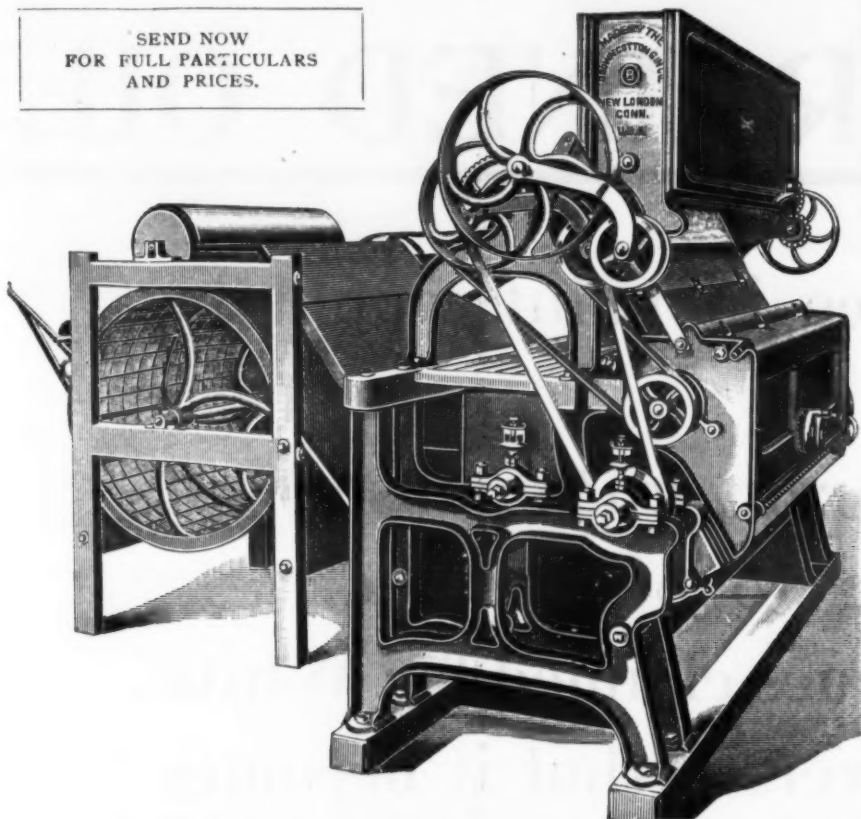
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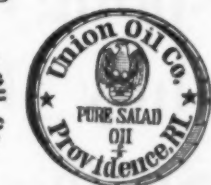
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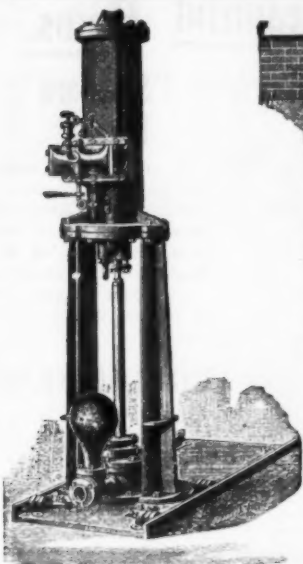
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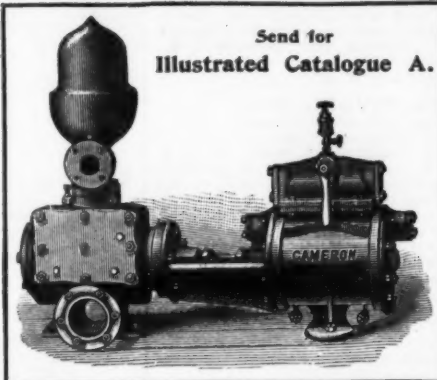
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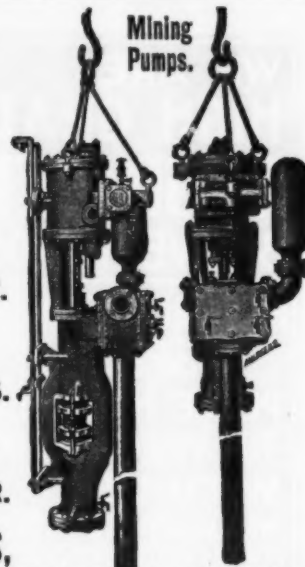


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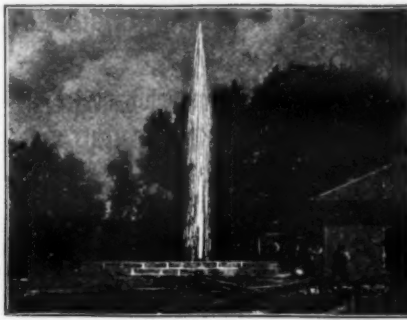
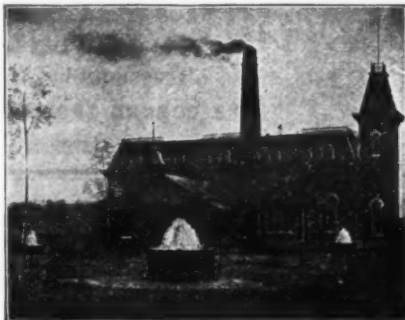
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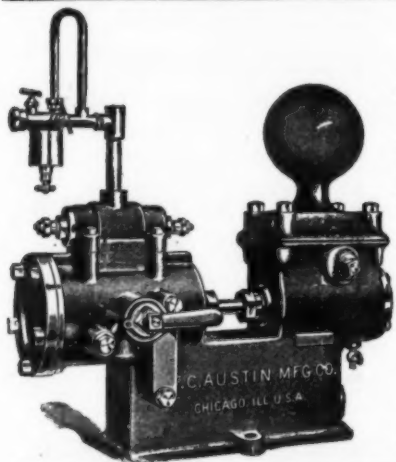


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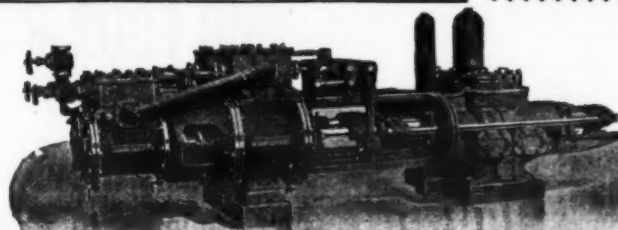
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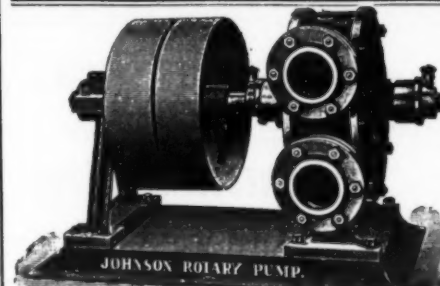
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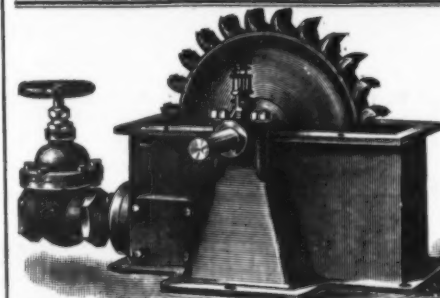
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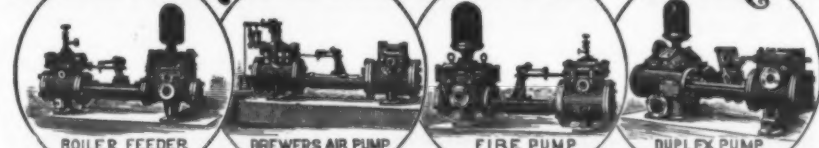


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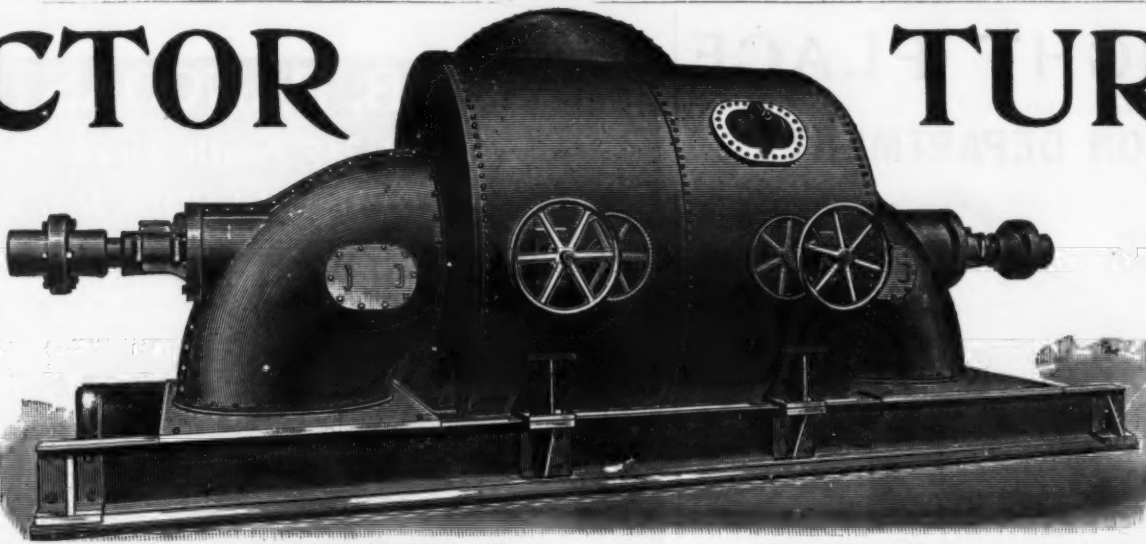
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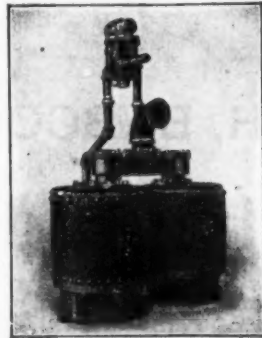
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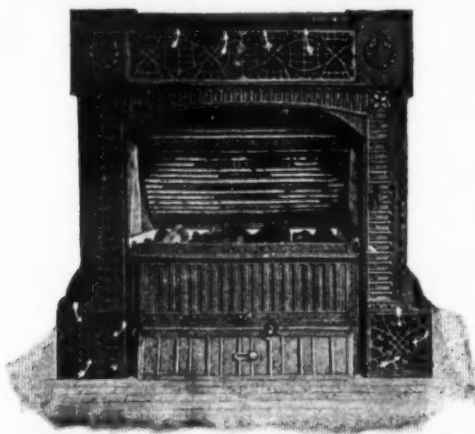
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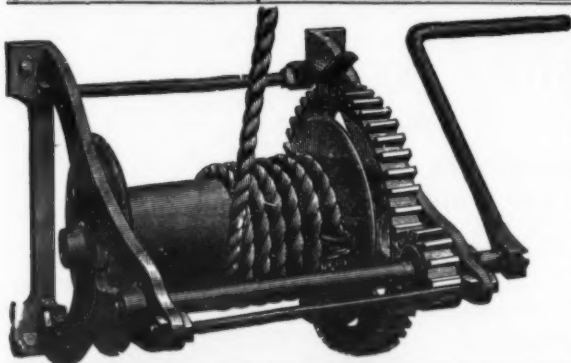


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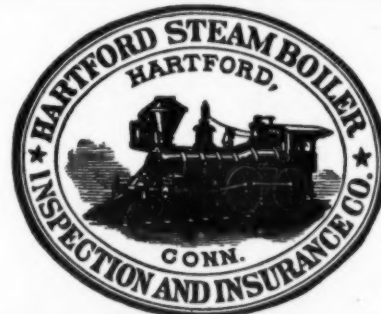
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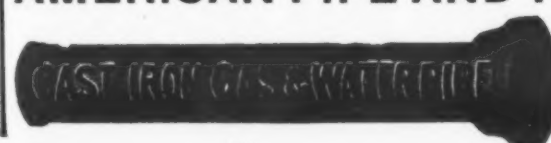
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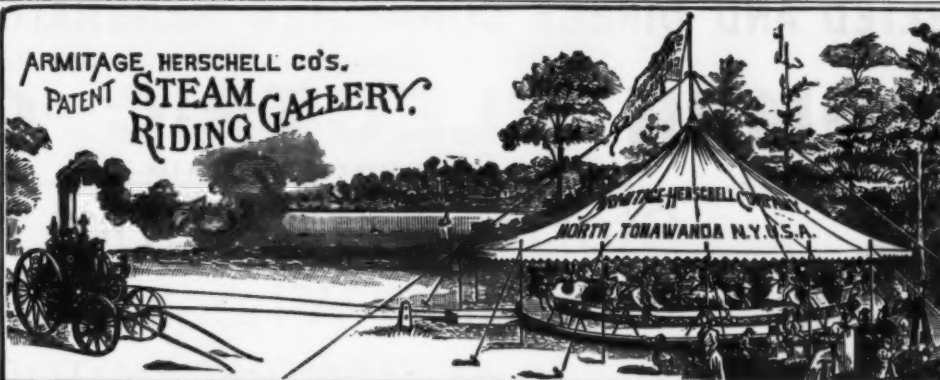
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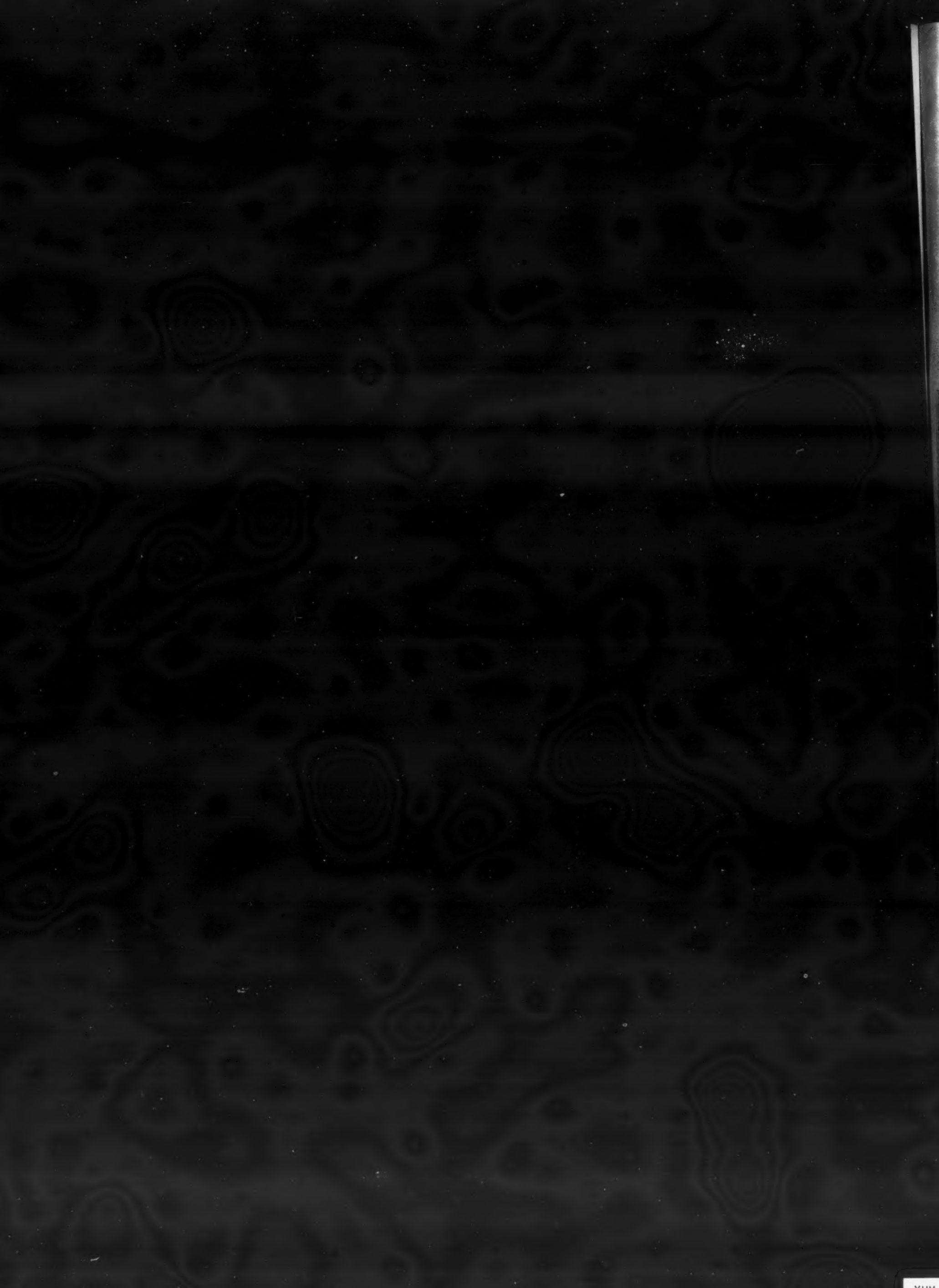
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